THE

MARYLAND FARMER:

DEVOTED TO

Agriculture, Horticulture, and Rural Economy.

VOL. 10. BALTIMORE, SEPTEMBER, 1873. No. 9

Agricultural Calendar.

FARM WORK FOR SEPTEMBER.

The work for this month will be confined principally to such work as threshing grain, preparing land for wheat-seeding; gathering the top and blade fodder; cutting off and stooking such corn as may have passed the starch stage and the outer shucks are turning yellow, and such other work as the month calls for. Tobacco planters will be necessarily busy in worming, topping, succoring and housing tobacco, as the circumstances and condition of the crop require. When they all come together, as probably will be the case this year, they will have their time fully occupied and can attend to nothing else, particularly if they have made this crop a spcialty.

TOBACCO.

Owing to the drought in early part of the season, the small portion of the tobacco crop which has been planted will not be ripe enough to house before next month. In the meantime, that which the planter has been fortunate enough to have standing, should be well cultivated, and taken care of in the best possible manner, so as, if possible, to make the *little*, bring as much money as a large crop would have done if sent into market under bad management. Do not be too greedy and let the plants grow to the greatest height they can obtain, deeming that you are thereby the gainer, for rest assured a plant topt down to twelve leaves early, will give much more weight and finer quality than the same plant left to blossom and then topt just below the blossom stem with eighteen or twenty leaves, as is too often the mistaken though pernicious practice. The worms will probably be numerous as the first glut was not destroyed, therefore planters must be on their guard and see that these pests are destroyed in the egg or very early stage of their growth. It would be a pity to let the worms devour the few plants that an adverse season permitted to be planted. They must be destroyed at any cost, should be the watch-word with our planters at this time.

The crop will be a short one in the whole country. We learn from an exchange that the Connecticut crop will fall short 30 to 40,000 cases of last year. He says "in Tolland county the growth is very late, the raisers not having adopted *the new plan of growing under cotton cloth soaked in linseed oil*, which has been used more or less in Hartford county." Let our planters next year take this hint from our northern friends and try it. It is on the principle of common muslin soaked in oil and used on hot beds in place of glass. We presume the beds are only six feet wide, and the muslin frames simply laid on the edges of planks—not tight like a hot bed, yet sufficiently so to confine the heat, and at the same time admit enough air to keep the temperature even and not too high. Of course they would require water occasionally and some more attention than that given to the common beds. It is not presumed that plants sufficient for a large crop could be grown in this way, but a bed 6 feet by 100 feet, would give a great many plants, for an early beginning while the other uncovered beds were coming on. The fly we imagine would not trouble these beds. Who will try it next year on a small scale? It certainly would work well for the small planter who makes from 10 to 15 hogsheads per year.

An intelligent and enquiring friend lately returned from a visit to the north, informs us that he learned from a tobacco grower, that it was a custom there to work the same land in tobacco for several successive years. As soon as the crop was taken off, the land was highly manured and plowed, rye was sown thick, to be turned in the following spring as a green manure, thus securing vegetable matter for commingling with the fertilizers which were supplied in plenty. By this means the land is each year supplied with all the elements of fertility that this crop can want, and hence the result is a heavy yield and a profit of from 200 to 500 dollars per acre.

TURNIPS.

It is late, but we have seen very sweet good sized white turnips grown when sowed on the 10th of this month.

ORCHARDS.

These should be attended to, and the decayed and fallen fruits picked up and fed to hogs, milch cows, etc., if the hogs have not the run of the orchard, which perhaps in most cases would be the best plan. It certainly would save labor, help the hogs and improve the future health of the trees, three important items—caterpillars and other insects should be destroyed as far as possible. Thin the fruit and prop up any over-laden limbs or branches ; remove broken limbs.

WHEAT.

The ground intended for fallow wheat ought to be plowed and harrowed and kept in nice order by frequent use of Thomas' Smoothing Harrow. Procure your seed in time. Do not put this important matter off to the last moment, when perchance you will have to put up with inferior seed or sow none at all. It is thought, between the 1st and 15th of next nonth is the best time to sow wheat in this section. Before then, we propose to make some suggestions as to the mode of sowing and manures best adapted to this crop. We admit this crop has become very precarious in its yield, owing to the many casualties it is peculiarly liable, yet much of the failure we are inclined to think is owing to the mode of cultivation and the deficiency in the soil of those elements essential to the growth of the plants and the developments of the grains. Whenever we have reported a fine crop, we see from the statement that it was properly seeded on good land and fertilized. One crop is thus reported, as yielding over fifty bushels per acre ; Turner's "Excelsior" being the fertilizer used. This and other fertilizers in the market are rich in those ingredients that constitute the proper food for the wheat plant. But should our readers desire to purchase fertilizers for their wheat crop before next month we would advise them to remember that the principle constituents of wheat are potash, soda, lime, bone phosphate and silica. Where any of these are wanting in the soil, the crop will be deficient. And as it may not be known in which one, or in all, that the land is wanting, the manure used should be of such a character as to supply *all*. Hence any fertilizer that you may buy, you should know was composed principally of the ingredients above named as the chief constituents of wheat.

FENCES.

Look well to these at this time of the year, for stock if ever troublesome, will commence now to be so. Remember "good fences make good neighbors." Bad fencing make bad stock, and a more fruitful source of ill-feeling between neighboring farmers, is not to be named, than trespassing stock.

DITCHING AND DRAINING.

If you have any land which requires draining, and there are few farms that do not require it to a greater or less extent, this is a good time to begin the work and push it forward before winter comes.

LIME.

This mineral manure is the foundation of all improvement in the soil, therefore all who can do so, should use lime from 25 to 100 bushels per acre. The less vegetation or vegetable matter in the soil, the less lime should be used. The lime must have vegetable matter to act upon to form mould, hence the great importance of getting a set of grass or vegetable growth of some sort for the lime to form food out of suitable to plants. The more grass, the heavier may be the dressing of lime, and the speedier and more notable will be its effects on the crops and the continuing fertility of the land to which it is applied.

PLASTER.

Plaster is one of the best deodorizers and should from this season until frost be freely used everywhere that a bad smell is likely to arise, such as the privy-sink, poultry yards, barn yards, hog pens and stables. The cost is nothing compared with the health of the family, and will well repay the expense and labor in the extra value of these deposits, as manure. At least once a week all these places should be made white with plaster.

CELLARS AND OUTHOUSES.

These should be white-washed, if not already done, and the floors strewn with plaster. It purifies the air and renders innocuous any unwholesome malarial atmosphere that might otherwise be generated in these places. Cleanliness and neatness observable in these places, saves the doctors bill and often life itself.

MEADOWS.

Those who intend to set down meadows should do so this month. The only way for grass land, both hay and after pasture, to give entire satisfaction, is to have the land thoroughly prepared and highly enriched chiefly with bones and bone-phosphates, salt, lime, plaster, etc. ; sow the seed thick, it will regulate itself. We would advise a mixture of seeds ; if designed as a timothy meadow, sow 6 quarts of timothy, 1 bushel of Orchard Grass, a few lbs., of Kentucky Blue Grass, and 10 lbs.,

of Perennial Rye Grass to which a small quantity of Sweet Vernal Grass might be added; mix well together, put in with a light harrow and roll.

THRESHING GRAIN.

This should continue or be done, if it is not already off hand.

STOCK.

See that your stock, have a plenty of clean, clear water, and keep your sheep supplied with salt and tar. Give once or twice a week a half a handful of a mixture composed of ashes, slacked lime, and salt, mixed in equal quantities, to each horse and each of the horned cattle. Look out for the dogs, they have their times for hunting their game when in high season as have men. This is about their mutton-hunting season, and they will be out of nights after the sheep, so a good look out should be had and give them a warm-hot reception.—Every dog found in the sheep pasture ought to be shot or *tin-panned*, if he can be caught so as to get the pan attached to his tail.

MANURE.

This is a good time to collect materials and make a compost heap or heaps. Also to get together materials for working up into valuable manure, from now, during the winter, until spring; these materials consist of weeds, briars and tussocks taken up while cleaning the fields and fence corners, also marsh mud, ditch banks, old straw, leaves and mould from the woods; the accumulations around the barns; wheat chaff and in a word all the rubbish to be found in cleaning and putting the place in order. These things brought together and intermixed in layers, with stable manure or other half rotted manure, with some salt, ashes, plaster, and if it can be had, a ton or two of fish manure, or dried fish which is sold as fish-scrap in large quantities for composting. After a while these articles are turned over, and as the whole decomposes, the mass is to be worked into a thorough admixture when there will be found a superior fertilizer made chiefly out of things that would have otherwise been a nuisance, with but a small outlay of money and some labor and attention.

SOWING GRASS SEED.—A correspondent at Centerville, Ind., writing the *Country Gentleman*, says: Some weeks ago I noticed an inquiry in regard to grass seed in both directions across a field. I sow timothy seed on wheat as soon as the latter is harrowed and dragged, or about the 10th to middle of September, then sow clover seed across the field in March at right angles to the former sowing, thus advoidng making any strips which make a field unfarmerlike. I always sow broadcast, using 1½ bushels of each on ten acres, and invariably have a good stand of both timothy and clover.

For the Maryland Farmer.

PLOWING.

The common, or more general, reasons given as the object of plowing are: "To pulverize the soil to mingle the different portions, to kill weeds, to cover manures, and to keep the surface open and fresh." A still farther object, which may perhaps be included in the foregoing, is to air the soil. Air is essential to the preparation of plant food in a soil; it changes a putrefactive process to one of oxidation; and the moment in which the putrefaction of organic matter changes to one of oxidation, the soil changes from an infertile, to a fertile one, or its fertility is measurably increased; the oxygen in the soil is no longer employed in converting soluble matter into insoluble, but serves for the formation of carbonic acid, which enters largely into the composition and food of plants. In a soil to which the air has little or no access, animal or vegetable matter do not decay, at most they can only putrefy which is a strong deoxidizing process; they only decay when air is freely supplied. We thus see that a most important object in plowing is to freely air the soil, that oxidation and decay may go freely on, thus preparing and supplying adapted plant food, in the soil, that may be readily absorbed and taken into the composition of plants.

The plowing which will accomplish the foregoing objects, in the greatest perfection, is the best. It will be inferred from what has already been said that pulverization of the soil, in plowing, is the most important; and that the system which accomplishes this the most thoroughly, is the best. This is best understood by all those most thorough cultivators who wish to grow the finest, best, and greastest product from a given soil. Would all our farmers but adopt this course, in plowing, and culture generally, with all their lands, we should hear little about poor crops, failure, etc. In this way we may make twenty acres do the duty now performed by thirty or forty; and how much better than to add the increased cost to the farm by doubling its surface area. A saving of the first cost, saving in labor, and saving in every way is thereby accomplished. The writer is well aware that soils vary, and that they cannot all be plowed, and worked alike, but that there can be a great improvement, in the plowing and working of all soils there is not the least shadow of doubt.

It has been aptly said that: "Nearly every farmer in the country has a new farm under the old one;" I would improve on this by saying that it is my conviction that nearly every farmer has a farm lying within the confines of his present one; and

that by performing all his culture in a more thorough, careful manner he will soon find his reward in the old-new, farm.

It is never advisable, in any soil, to plow so deep as to throw the cold, dead, subsoil on top of the richer, warmer, upper soil, to any considerable extent; but that in many instances the loosening of the hard and compact subsoil is of the greatest importance, this is the first step in deepening the surface soil; after which we may begin to turn up a slight depth of the subsoil gradually, and as it becomes ameliorated, more may be added in the same way.

There are several different ways of plowing sod, and fallow ground; but it is not my purpose here to criticise, or describe any of them, only to state some general principles deduced from experience as well as observation. That way of plowing which most effectually pulverizes the soil and still keeps the richest and best at the top, is the best and most economical. The tendency of the feeding roots of plants is to seek congenial soil near the surface; as here the largest part of pabulum from organic matter is prepared; air, moisture, and warmth of the sun, act more immediately at, or near the surface.

GUARDINIERE.

WHITE CLOVER AS A HONEY PLANT.—An English writer says: White or dutch clover is the queen of honey plants. It is widely cultivated in this country, and continues to flower a long time. In Scotland, the farmers use more white clover seed in laying down the land in grass than the farmers of England, hence the clover fields are better there than here. And the use of lime and bone-dust, as manures, has great influence in the production of clover. In traveling to Edinburg some years ago by the Caledonian line, whole fields, white with clover, caught my eye and made me take a second look to see if the whiteness came from the daisies. Whole districts, unsurpassed for excellence, met my eye during a visit to my native land, many of which hardly ever received a complimentary visit from bees, because there were no bee-keepers in these districts.

CANADA THISTLE.—A. H. Elliot, of Erie county, this State, gives this mode of killing the Canada thistle, in the *Rural New-Yorker*:—"In the best field on the farm we had about two acres of Canada thistles. Five years ago we cut a good crop of clover hay, and the last week in August turned the second of seed crop down for fall wheat. Harvested a good crop of wheat but no thistles."

ORCHARD GRASS.

MARYLAND, July 25th, 1873.

COL. W. W. W. BOWIE,

Associate Editor of the Maryland Farmer.

Understanding that you have had extensive experience in the raising of Orchard grass. I desire to ask the following questions as my limited experience in sowing the seed will not allow me to make it a guide for future operations, and as I believe in putting a variety of the seeds *of the proper kind* upon our meadow and pasture lands. I wish to know which will grow together without interference.

The field is one from which I have just cut a crop of wheat. I have not thrashed yet and cannot say how much; I may make that an opportunity for another article. I sowed timothy last fall and clover last spring with a good stand of both, hence I shall cut next year for hay; now,

1. When shall I sow the Orchard Grass?

2. How much per acre, considering my set of clover and timothy is good?

3. (Which ought to be 1st. Would you advise me to sow Orchard Grass on the field?

4. If sown next spring (which I presume is the proper time; will it grow large enough to cut the same season?

5. Will it ripen enough to be cut with the clover and timothy?

6. Will it *sell* mixed with the clover and timothy hay?

7. Is there any other grass seed you would recommend in place of, or with the Orchard Grass?

8. Has it any other name in this country or elsewhere?

9. I expect to put this year corn field in rye and sow timothy in the fall and clover in the spring of 1874; would it do to sow Orchard grass on the same in the spring, or would you recommend any other seed in preference, (the field being designed for hay for market;) and at what time and in what quantity would you sow it?

NOTES.

In reply to the above queries by our accomplished and highly esteemed correspondent, we proceed to say all that our experience justifies us in saying about Orchard Grass.

1. *Orchard Grass* is best sown in September or October, but may be sown in winter or spring if the ground be in order to harrow it in lightly and then rolled.

2. When sown with clover, one bushel, when by itself, one and a half or two bushels per acre. A good mixture would be a half a bushel with one

peck of timothy and one gallon of clover seed, if sown in September, if not, then the clover should be sown in spring.

3. It is by no means advisable to sow this grass on your stubble where you now have a good set of clover and timothy.

4. No.

5. It ought to be cut for hay when tender, and before it ripens seed. It is excellent to be sown with clover as it helps to hold up the clover and ripens its seed, or is fit to cut about the time that clover is. It does not suit timothy ; the latter being a much later grass.

6. Mixed with clover hay, it increases the price of that hay, but lessons the price of timothy.

7. No other grass seed (except clover) can well be substituted for it, as it gives an early pasture, or makes fine hay, and furnishes quickly a fine aftermath keeping green up to winter, and admits closer feeding than any other grass. Indeed, close grazing improves and thickens this splendid native grass, which is in England held in high repute for pasture as well as for hay—it is there called "*Rough Cock's Foot*" as well as *Orchard Grass.*

(These are its only names that we are aware of, and is the answer to 9th question. If intended for pasture for some years, it would be well to sow a bushel of Red Top or Herd's Grass per acre, and one gallon of clover with Kentucky Blue Grass say ten pounds, and similar amount of sweet vernal. But if for hay, we should sow one and a half bushels with one or two gallons of clover seed, early in September on well prepared and highly enriched land, harrow lightly and roll. You would have a fair crop of hay next year. In a couple of years the clover would disappear leaving its roots to fertilize the land, when the whole ground would be possessed by this very luxuriant grass, that would yield very early pasture, to be grazed as long as one would graze rye, yield splendid hay, and fine pasturage afterward until winter. It makes the best upland pasture we know. Why it is not more generally used we cannot tell, unless it is because it requires certain conditions to make it a success. It is in its young state impatient of other grasses or grain crops which shade it, and it requires a good soil, whether a stiff or a light soil, or dry or rather wet, and good preparation of the ground for the reception of the seed. The seed is easily saved, does not shatter easily and yields from ten to twenty bushels per acre. After the seed is "cradled" and bound like wheat, the under grass can be cut at once for hay. Strips are mown with scythe at proper distances where the short bundles of haycontaining the seed can be bound up and set up for drying like oats. It does well under the shade of trees—hence probably its name—and as before remarked, it flourishes on good upland, as also on rich moist low ground.

Governor Bowie, who raises many horses and cattle besides fattening cattle and sheep, has for many years, sowed Orchard Grass with clover and other grasses, and he says it is to the Maryland grass growers what Kentucky Blue Grass is to the stock growers of Kentucky. He sows annually a large quantity ; one year he bought of Messrs. Whitman & Sons, as much as a *hundred bushels*, and he considered that it was a first rate investment.

REDUCING BONES.

Mr. Potter Warren, of New Hampshire, a ta recent Agricultural Convention, gave the following easy and cheap formula for reducing bones. If the farmer will set aside a cask, in some oonvenient place, for the reception of bones, and throw all that are found on the farm into it, he will be likely to find a collection at the end of the year that would prove a valuable adjunct to his manure heap :

"Place them in a large kette mized with ashes, and about one peck of lime to the barrel of bones. Cover with water and boil. In twenty-four hours all the bones, with the exeption, perhaps, of the hard shin-bones, will become so much softened as to be eaily pulverized by hand. They will not be in particles of bone, but a pasty condition, and in excellent form to mix with muck, loam or ashes, By boiling the shin-bones ten or twelve hours longer they will also become soft."

How to Measure the Height of Trees.—When a tree stands so that the length of its shadow can be measured its height may be reaidly ascertained as follows : Set a stick upright (let it be perpendicular by the plumb line). Measure the length of the shadow of the stick. As the length of its shadow is to the height of the stick, so is length of the shadow of the tree to its height. For instance : if the stick is four feet above the ground, and its shadow is six feet in length, and the shadow of the tree is ninety feet , the height of the tree will be sixty feet (6 :4 : :90 :60). In other words, multiply the length of the shadow of the tree by the height of the stick, and divide by the shadow of the stick.

Horses Overheated.—The Secretary of the Society for Prevention of Cruelty to Animals recommends the following preparation for animals suffering from being overheated: To one pint of water put 1 oz. of chloride of ammonia ; 1 oz. sweet spirits of nitre ; 1 drachm of tincture aconite ; give a tablespoonful every hour or two,

A VARIETY OF STATEMENTS AND SUGGESTIONS ALL IMPORTANT TO THE FARMER.

NUMBER TEN.

THE NURTURE OF THE SONS OF FARMERS FOR THE VOCATION OF THEIR FATHERS.

I have already occupied much valuable space, chapter after chapter, with matter directly or indirectly pertaining to this subject. Feeling, as I do, that its importance is second to no other, with which I can occupy my pen, in the furtherance of the interests of the yeomanry of my country, is my reason for so repeatedly, and so importunately presenting its claims on the readers of the "*Farmer*."

I desire in this, the sequel of my protracted article, to urge upon farmers and their wives, the performance of the duty they owe to their children of both sexes. I have hitherto confined myself to the claims of sons on the fathers, for special nurture and care in bringing them up to succeed them at the handles of the plow; and I have only advanced a few of the many ways that the very desirable object may be promoted, without adding in the least to the expense of rearing the family of the farmer, as compared with the course that generally prevails. My silence on the subject of the equally importance claims of the daughters of farmers, to a reformation in the course pursued towards many of them, in their bringing up, has not been for want of an appreciation of them, or that their sphere is less important in rural society, as such, or in each household or family, than that occupied by their brothers; but I have deemed it proper to urge my pleas for the interests of each separately. They are in one sense identical, but in another distinct, and require special provision in their promotion.

The paramount object in rearing and educating the daughters of farmers, who are to be the wives and mothers of future farmers, is to beget in their minds a love for the pursuit, their important part in which, they should be able to act in a manner that each successive generation shall ascend higher and higher, in the scale of all that constitutes the truly intelligent and capable farmer's wife.

THE HEAD OF THE FAMILY.

We have been taught to consider the husband the head of the family, and very properly, but the acknowledgment of this, is by no means acknowledging his superiority over the wife, in all respects.

If man is the *head* of the family, quite as appropriately, may the true woman, educated and fitted for her position, be called the *soul* of the family. The impress of her characteristics are more strikingly observable in the children of either sex, than are those of the father. At the age that the minds of children are most susceptible to impressions, that are more enduring than those of any other period, they are chiefly under the special control and discipline of the mother; hence, how important that the mother should be thoroughly qualified for the discharge of such a momentous duty. Many great men, and many good men, have acknowledged, that their greatness and goodness, if they possessed either in an exalted degree, was directly traceable to the precepts, counsel and wholesome influences of a great and good mother indelibly impressed on the memory by prayers and kisses from lips that never cease their offices of loving kindness, so long as vitality exists.

The place of a farmers wife is most difficult to properly fill, and upon her, as much as upon the husband, depends the prosperity and happiness of the household. The great variety of her necessary qualifications, and the importance of many that she should possess, make her proper training for the duties of her sphere, a matter of the greatest moment. I would that I could reach with all my views, every farmer's wife in the land, and that I had the ability, so to impress on each, all her duties to her children, especially to her daughters.

I would urge on her, that it is essentially necessary that she should educate them, as far as practicable herself; and when instruction is to be given by an employed instructress, let it be, if possible, under the parental roof, and under the guardian eye of the mother. I know of no boarding school in the land, where a farmer's daughter may be educated in a manner to well qualify her to be the soul of a farmers family, and a good and useful wife.

We greatly need schools adapted to the education of farmers daughters, in all the detail of the duties of the farmer's household; but 'where are they? the echo answers, where?

It is greatly to be feared, that this very great want will long exist; and it is also to be feared, that, should schools having this avowed object be organized, that they will be as worthless and as illy deserving of the name of "a practical school," as are a very large majority of the so called, agricultural colleges of this country; hence, our main dependence for the immediate future, must be on the mothers, and on an instructress under her personal supervision. Outside of this pure field of instruction and discipline, I have no confidence in any place of instruction for the girl, who is to be

qualified to be a farmers wife. I need not point out to the reader the defects in the course of instruction, in what are called the best young ladies' seminaries in the country ; for they are well known to the class for whom this article is intended.

Those defects have become crying evils, and they are so deeply rooted and have so entwined their fascinating, strong and resistless influences on so large a number, that the few, not included in the list of patrons, who encourage these schools of error, are utterly powerless to inaugurate reform.

NO TIME TO TEACH.

I know that many will claim that the onerous duties of a farmer's wife, who allows none of them to be neglected, so closely and entirely occupy her time and attention, that she does not see how she can teach her daughters, even the rudimentary branches.

But "where there is a will, there is a way," and dear mother, you can if you *will*, gain that time required for you to devote to this duty from which you have no moral right to shirk. How gain that time, do you ask?

I will tell you. You are to require your daughters, without respect to age, to assist you in your manifold duties, until they are all performed, by which, (as many hands make light work) you will gain sufficient time to give, say two hours to daily instruction. The instruction need not be in requiring long, dry lessons to be committed to memory, and recited verbatim, in the various branches, without explanation ; but much more rapid progress may be made, by reading the studies pursued, and orally explaining, according to the age of the child, and the character of the study. The child should read the lesson, and every word read should be defined correctly, and the meaning of the matter read should be explained, and made as interesting as possible. The children will learn much more rapidly, and understand much more clearly what they are pursuing, by this course of instruction, than they will in tripple the amount of time, spent in committing to memory alone, long, unintelligible lessons ; and then the time that would have been devoted to studying without an instruction, may be given to the equally important matters of house-work. By mother and daughters all moving, working, reading and studying in concert, all may be accomplished that need be, in a given time, in the way of work, and time may be gained, so that the mother may participate in the sports and pleasures, that are indispensable to the wholesome growth of the children.

Thus the mother may teach the child how to play, how to avoid danger, and to avoid over exertion, and too violent exercise, which is often worse in its effects than too little, or none. In this way, the child will be in the society of the mother a large portion of the time, and will very rapidly acquire all that the mother is capable of imparting.

When the mother feels her incapacity further to conduct the scholastic instruction of her children to their advantage, or their literate condition is equal to hers, and she feels that she has the pecuniary ability to call to her aid an instructor, or instructress, under whom they shall be further advanced, it will be most fortunate for both her, and for her children, if it can be done under the parental roof. I have known more than one young mother, who had, as too many have, neglected to improve the advantages they had enjoyed in their scholastic days, and when they become mothers, and desired to instruct their offspring, and were incompetent to do so as they desired, they have felt, as many others have, that it is a sad thing to neglect our early opportunities for acquiring education. In this dilema, the children are either to be sent from home to school, do without further instruction or call a private tutor into the family. The latter greatly is to be prefered, if it can be afforded.

Before a deision of this matter of affording or not affording to employ a private tutor is decided, all the pros and cons should be duly considered. The cost of dress required for the children, that they shall not be mortified, and made unhappy, by their appearance as compared, with their associates, if sent from home to school, must in addition to the valuable time of the child at home, when not engaged in study ; traveling expenses ; extravagant school bills, (of which the extras are often fearful) extravagant and unprofitable habits and tastes acquired, which not unfrequently have made the child dissatisfied with home, when it returned ; and last, but not least, by any means, is the exposure of the child to the influences of congregated mischief, vice and ruinous imprudencies, the injurious effects of which alone, often more than counterbalance the value of all else acquired.

Rural mother, this is no overwrought or exaggerated enumeration of the disadvantages that present themselves in the boarding school system of education ; it is truthful, and its truth is sustained by the sad experience of many a fond parent, who is ready cheerfully to give all that the education of a child has cost from home, if it could only be placed back into the condition in which it was before it was exposed to the false and ruinous system to which I have alluded.

Do you tell me that you cannot afford to employ a private tutor, and hence you must take the chances of the effects of what I have described, and forego the cost?

Do you put a money valuation on the morals and physical health of your child?

Do you ask what I mean by the last interrogatory? I will tell you. I mean that the morals and physical condition of the child is in much greater jeopardy at the *boarding school*, than under your own eye.

You, dear parents, are struggling and toiling to acquire material aid with which to "start your children in the world;" you feel that money is the great essential, and that what you expend in the proper education of your children, is just proportionately reducing the amount that you will be able to give them, hence you claim that you cannot afford to use your means for the mental culture of your children, but to a limited extent, for that reason. Let me beg of you to take a legitimate and sagacious view of this momentous matter.

An hundred dollars worth of education, proper education, such as I have recommended, should be given your children *at home*, as far as practicable, where it shall embrace daily practical instruction in the vocation to which they are to be devoted for life, collateral with their scholastic instruction, will be worth many hundreds to them when they shall become parents, and shall have children whom they desire to educate.

We can acquire money with the aid of education, if it is of the right sort, after we are grown, and have embarked in business, but that is not the time for acquiring an education; it is then, as thousands can attest, too late, forever too late.

J. Wilkinson.

Rural Architect, Landscape Gardener, and Consulting Agriculturist, Baltimore.

Translated from the French.

FARMERS' ASSEMBLIES.

BY OUR OWN TRANSLATOR.

(As an illustration of the views entertained in other sections upon the question of co-operation and assembling of farmers for mutual improvement and benefit, we translate the following from the French of *La Semaine Agricole*, Montreal, Canada.)

"We desire to impress upon farmers the necessity of giving most particular care to their profession and of taking every possible means to perfect themselves therein. For instance, could they not get together sometimes to enlighten one another by an exchange of information? If they would form among themselves small assemblies, they would go from them greatly benefitted. When several persons are united for the investigation of the same subject they cannot fail of mutual improvement. Differently constituted by nature, placed in different circumstances, finding themselves with diverse opportunities for observation and having different views, it is rational to suppose that what one has not perceived an other will have observed; that what one has not attempted another will have proved; in fine, that each will bring a portion of experiences which, joined together, will form a whole as interesting as instructive.—Each individual will possess this whole and the experiences of all the others.

This principle which is true for all the arts and sciences without exception, may be applied more particularly to agriculture than to any other. Agriculture, considered purely and simply as an art, without connecting it with the sciences or philosophy, can grow continually only by the combined efforts of reason and reiterated experiences. But almost all farmers are not able, or at least imagine they are not able to give much time to reflection and experiences; that is what should induce them still more to impart their ideas and their discoveries.

Let us take for instance, the improvement of cattle in which farmers generally are deficient, we cannot doubt that re-unions such as we suggest would contribute to hasten a remedy. There is no room to doubt that if they would converse together frankly and in detail on this subject, if they would communicate their ideas and the various results they have attained from their experiments, they would obtain many new lights, and would put themselves in a condition for speedy improvement.

The natural effect of these re-unions would be to inspire each member with the order of emulation in their labors and their enterprises. He who lacks activity and ambition would be stimulated by him who has more zeal. There is no country, perhaps, where agriculture has been carried to so high a degree of perfection as in England; all writers agree in attributing this advancement in a great measure to those different societies established everywhere.

To sum up—we conclude by declaring 1st. That the system of agriculture in this country is susceptible of great improvements which each day become more necessary. 2d. That farmers should employ all their care and attention in correcting their defects, particularly those we have intimated. 3d. That the custom of forming themselves into small societies would be one of the most prompt and most sure means for the accomplishment of the objects desired."

Horses' Collars should be so made as to throw the chief force on the lower part of the shoulder. For this reason breast collars are coming into vogue

GARDEN WORK.

As hints for the work to be done in the garden this month, we would only mention the chief matters requiring attention, as follows:

Radish Seed.—Chinese Rose and Spanish turnip-rooted radish seed may be sown prior to the middle of the month, on good ground.

Celery.—Earth up celery when dry and on dry days. Do not cover the hearts of the plants; water abundantly, sometimes with brackish water.

Turnips.—Hoe often and thin to 6 and 10 inches apart.

Lettuce.—Set out lettuce plants, work often and water well—the soil should be light and very rich. Sow seeds for winter use on a rich, protected border, and cover with brush during winter.

Cauliflower.—From the 10th to the 20th. Sow cauliflower seed and in a month the plants will be ready for transfer to the cold-frames, where they will remain all winter to be protected in severe weather, and exposed to the air on mild days, with occasional watering.

Plant out Herbs.—During rainy weather plant out any herbs that may be needed next year.

Gather the Seeds.—When the different seeds ripen, gather them, dry perfectly; put in paper bags, label them and put them away safe from mice and vermin.

Kale.—If you desire nice sprouts next February and along through the spring, prepare at once a rich loamy bed, sow Siberian Kale, about as thick as you do turnips; rake in the seed, tramp or beat it in with the back of the hoe or spade, unless you have, as you ought to have, a hand roller. When cold weather sets in get out all the grass in the beds, and cover with a light coat of straw or fine pine brush. This vegetable will be agreeable to eat with your newly smoked jowl or middling.

Cabbages.—Sow seeds of the Early York, Curled Savoy and Jersy Wakefield, so as to have the plants ready to set out in October.

Endive.—This delightful vegetable, between lettuce and celery, must now be set out in rows 14 inches apart and 12 inches asunder in the rows. As they grow earth up slightly to incline them to head and blanch.

COWS WASTING THEIR MILK.—One of our Southesn subscribers, says the *Practical Farmer*, writes for a remedy against cows wasting their milk. We have usually found the only remedy, milking three times a day. There is a weakness in the muscles of the teat, or inability from some cause, for the cow to contract them, which thus allows the milk to run out as it is secreted.

MR. JILKS ON FANCY BREEDING.

PAPER NUMBER 4.

To the Editurs of the Maryland Farmer: As I remarked before to you, I'm a powerful obsarver ov the workings of things, and in this matter ov breedin' cattil. I'm powerfully *interested* besides, as is every other honest and uprite farmer that wants lots of ov milk and butter and kreem, and buttet milk, and other good things, that comes from cows and don't kare a cent about them that wuthless for all these things, all tha've got to rekommend them bein' a green tip on the end ov their tail or a blue stripe on the back band. I want to kall the attentention ov all Maryland and other farmers to sumthing that looks like inikwity in the raisin' of stock. I allude to the bringin' up ov cattle simply fur their good looks and their colors. I can illustrate this better by referring to current advertisement. In a notice of eight animals for sale, the owners gives us the color of seven of them with the following variations: 1, fawn and white, switched white; 2, fawn white switch; 3, ream fawn; 4, fawn and white; 5, dark fawn some white; 6, fawn, white points; 7, fawn and white.

Notice what a high art men attain in breedin' cattle fur practiful farmers when tha kindly inform us she has a white tail, and how completely at rest a countryman, in search ov sumthing that shows its pedigree in the milk pail must feel when he kums across one with sum creamy fawn points about her. A farmer likes kulor—you kin tell that by the size of his garden palens—but there's sum less that takes kindly to butter milk, yet one ov whom I am proud to be, to say nothing ov small children, sick lambs and city milkmen; these last must have *sum* milk fur a basis.

Here's another. A party advertises a Jersey Bull, color, fawn and little white. I spose the *little* white make him feel miserable, that is if he's breedin' to git out entirely, or perhaps I'm wrong: may be a little white around the pastern joint, or a white star on the dew lap is a high rekomendashun, I don't know which, I aint one ov them that buys fur kolor.

Then here's another that must look down from the mountain hites of conscious superiority on his less gifted fellow breeders, because he's got a lot o' Herd Registers—aint that a name to make an ignorant fellow that likes butter and kreem go without 'em—for sale and some o' these he says has "full solid color, with black points."

Now, how is one ov these ignorant fellers that don't know all about "points" to decide this question ov kolor? Them that has the "kreemy fawns with white tails" will constitute one side ov the question, and positively assure us that animal perfection in kow kritters is reached only when you git the white tails, while the "solid color with black points;" men will kall the white tailers all manner ov decievers and hold that the black points—I spose these has blacktails which bein an important "point" ought to be mentioned; how kame the black point man to forget the kolor ov the tail and the gambrill joint—is all that any reasonable man can expect in this life in the kattle line, and so the war goes on, black pointers against white tailers, but who stands up on the side ov the yellow milkers? There *is* sumthing in kolor when you git to

the milk pail, provided there's enough to see the kolor in.

To show how far this degeneration in breedin' has gone, let me quote what Col. Waring says on this subject. He ain't no imaginary person put in this paper for fun ; he's one ov the biggest things on breedin' cattle weve got in America or anywhere else ; he ain't in fur kolor ; he likes buttermilk : sez he—he's been out there to that foreign kountry New Jersey where the first jersay kattle kum from. "I wish my sold color and full black points friends could have seen the thousands of cows I saw in Germany and Italy. They were the most uniform lot I ever saw, steel gray in color, with black switches" (that I spose means *tails* ; leastwise if it don't meen that I don't know wot it does meen E. J. "and black feet and with the real Jersey fillet of mealy gray, ain't that trooly beautiful around their muzzles. Put on the markets of New York and Philadelphia, they would have brought round prices as Jersey Cattle, yet as dairy animals *they are as poor as any scrub in New England.*" (Ain't that more butifuler still ? E. J.)

How glorious it must be to own a "black pointer," fur a family cow and buy youre kreem and buttermilk ov the ignorant farmer across the road ! Whose stupidity and want ov appreciation of the fine arts lead him to encourage the yellow milkers.

Then he sez in another speech ov hisn !

"Then fancy for color is playing the very mischief with the breed of the best fifty cows I saw in Jersey (not New Jersey ; *not five were of the solid gray color*, (black tails, &c., E. J."

And to show how much value we may place on "imported stock, hereafter let me quote one more ov his proverbs, he sez : "I did not see one bull calf being raised that had not been selected *solely* (them italiks is hisn) for its color, which means that in a few generations of neglect the dairy quality must run itself out." But these breeders will still be harping ov the special value of imported stock. I say athing ain't good because its handsome, kum a great ways, or haz got a whole tail or a black one, but because it haz got substantial vurtes to rekommend it, and a good family so that it will run in the breed. Col. Waring says, further of the best fifty cows referred to above !" Fully twenty-five had white enough to condemn them in the "fancy" market, and nearly all had what would be called an objectionable amount."

I said I was interested in this matter. I have just bought a Jersey Bull, and would like to get three or four Jersey Cows, all for dairy purposes. Did I go in for white tails or black points ? No sir ; sez I, how many pounds ov butter did his mother make in a week, and how many quarts ov milk did his grandmother give, and was his father ov a milkin' stock, and sich and never sed paint shop once, and I shall do the same by the cows I wish to purchase, and for one shall have nothing to do with what I must again call the iniquity of breedin' for points that have no relation to the butter tub or butter milk or the pocket book on return day. But its sum Mistur Editur to know that tha kant do this thing without sum damage to their kon schiences, for I see one ov them has writ to a northern agricultural journal, to know "ef it was morally wrong to breed for colors ?" And ef ther's where he keeps his conshuns you'd better not buy ov him ennyhow, he might cheat you ; But I see by an advertisement in a Maryland paper that tha don't all go in for color ; one man says. "The subscriber offers for sale a very handsome lot of Jersey calves bred with special reference to their Butter, (marked the capital B that's hisn, E. J.) "making qualities, of good, healthy stock ; also a few Good Cows." I'll write to him rite off about them cows and git his tariff.

Yours hopefilly,

Ezekiel Jilks.

A DOZEN RULES FOR FARMERS.

From an exchange, we copy the following rules, excellent in their way, the 12th in particular, which we felt our duty to interpolate :

1. Take good papers and read them.
2. Keep account of farm operations.
3. Do not leave implements scattered over the farm, exposed to snow, rain and heat.
4. Repair tools and buildings at a proper time, and do not suffer a subsequent three-fold expenditure of time and money.
5. Use money judiciously and do not attend auction sales to purchase all kinds of trumpery because it is cheap.
6. See that fences are well repaired and cattle not grazing in the meadows, or grain fields, or orchards.
7. Do not refuse to make correct experiments, in a small way, of many new things.
8. Plant fruit trees well, care for them, and of course get good crops.
9. Practice economy by giving stock good shelter during the winter ; also good food, taking out all that is unsound, half rotten or mouldy.
10. Do not keep tribes of cats and snarling dogs around the premises, who eat more in a month than they are worth in a whole lifetime.
11. Read the advertisements, know what is going on, and frequently save money by it.
12. Take the Maryland Farmer and learn agriculture.

Effects of plaster on Land.—Plaster will not add to the permanent fertility of sandy soil, except as it may aid growth of clover, which may be plowed under, and thus furnish food for plants. Its chief use is supposed to be the absorption of ammonia from the atmosphere. The amount per acre need never be increased to produce the same results. Nor is it any more necessary to continue to use it after one application than it is to use barn-yard or other manures, because they have been once applied ; but to all soils whereon plaster benefits the crop once, it pays to apply it as a top-dressing annually on corn, potatoes, clover, grain, etc. Such is our experience during a long series of years on sandy, light loam, and well-drained, stiff loam lands.

One good newspaper is one good thing in every family.

POTOMAC FRUIT GROWERS' ASSOCIATION.

Perhaps it was owing to the abundant display of the finest specimens of the fruits of the season, that there was consiberably less talk than usual. Much time was spent in comparing fruits, and deciding if time to name.

NAMING.

The association is somewhat reluctant in naming doubtful fruits, and this which some might at first deem an indication of ignorance, is really a proof of wisdom. Fruits have too many names already, and before bestowing one we should *be sure we were right.* If I take a pear to Saunders, a peaeh to Saul or an apple to Gillingham for a name, ten chances to one they will say. "if you don't know, I don't." Fruit changes so much with the age of the tree, and differing soils and climates. Fruit exhibited should always be brought with a little of the branch and leaves, just as it grew. It assists greatly in identification.

FRUITS EXHIBITED.

The fruit on the tables were as follows: from the President, C. Gillingham, Accotink, Groth's Early peach, Townsend, Benoni, Red Astrachan, Hazloe and Edward's Early apples, Tyson, Kirtland, Bloodgood, Early Sugar and Bartlett pears, Stacy Snowden, Collingwood, Fairfax: a dwarf peach unnamed; Summer Rose, Early Strawberry, Red Astrachan, Sweet Bough, Benoni, Summer Queen and Jersey Sweet apples. H. D. Smith, Arlington, Hale's Early peach and nameless apples. Maj. Williams, Vienna, Fairfax; Hazloe Maiden's Blush and Red Astrachan apples, and Bloodgood, Bartlett, Benoni Deil and other pears. J. T. Bramhall, Falls Church, Fairfax; Gloria Mundi Summer pippen or Sour-bough, Summer Queen, Maiden's Blush, Jersey Sweet, Wetherill's White Sweet, and Red and Yellow Siberian apples; Amire Joannet or Early Sugar pear; Kittatinny and Lawton blackberry; all on the stem. No fruit shown from Maryland.

Maj. Williams presented apple stems injured by some insect, (*Bostrichus*, or cause of some sort.) Referred to Prof. Brainard.

Mr. Bramhall showed young peach trees girdled and killed by cut-worm, (*Agrotis.*)

Of apples, Edwards' Early, Hazloe, Astrachan, Sourbough and Jersey. Sweet received good mention. Gloria Mundi and Summer Queen were disliked for dropping; Maiden's Blush and Wetherill's Sweet ditto, and poor quality. Siberian Crab was recommended for early bearing, beauty and quality.

Mr. King presented a paper, of which the following is an abridgment:

GAS REFUSE.

This refuse consists, in part, of a gaseous and liquid product of coal; which is of a vegetable character. This is deposited, in the form of a coal tar and ammoniacal liquor, in the tanks or receivers with a large amount of refuse, in shape of a caustic lime, and, when perfectly fresh from the gas purifiers, is a dangerous application to growing crops. But according to Prof. Johnston, of Yale Agricultural School, after a short exposure to the air, it contains more than one-half carbonate of lime, one of the best alkaline salts, possessing great quickening power. About one-fifth is sulphate of lime, (gypsum.)

This, we all know, is good. About ten per cent. is water and coal-tar, two per cent. Prussian blue, and three per cent. alumina and oxide of iron. When applied in a fresh state to grass or the roots of peach trees, the trees were destroyed and the grass severely scorched, but it frees the soil from slugs, injurious worms or couch grass. Containing when fresh a substance, (sulphide of calcium,) which is the actual ingredient in cosmetics, for removing the hair, and powerful in its action upon vermin of all kinds, it has been thrown into a hog pen that the swine should incorporate it with the compost heat, which was effectually accomplished, but at the expense of the bristles and hair of the poor hogs, which were, in a great measure, removed by the operation.

The odor of the coal-tar, mixed with the gas lime in greater or less quantity, serves to dislodge insects and vermin, and has been sowed in small quantities over young turnips to prevent the attacks of the fly. In Scotland it is largely applied to moss land which it is intended to reclaim, and may be advantageously used, while fresh, in composing swamp muck, etc., turned over repeatedly for several months, before it is really safe for use, and is then most appropriate for clover or grass lands. From fifty to sixty bushels of the lime thus prepared is recommended for use per acre, applied in the autumn or early spring.

There is in the most of our soils a vast amount of valuable and inactive vegetable matter, which may be converted into available food for plants by the use of alkaline salts. By it, beds of muck, itself sour and dead, may be converted into an active fertilizing manure; and if wisely applied, will attract ammonia from the atmosphere, promote decomposition of the soil, and themselves decomposed by the power of the plant, enter largely into its formation. It is asserted that beef fed in

Pennsylvahia upon the grass grown from this "refuse lime" eommands the highest price in New York, as does their butter in the eities of Baltimore and Washington. While its use seems beneficial to the growth of eabbages and rye, to that of corn it is seriously injurious. It has been also reeommended to pulverize it fine and spread over the fields evenly, at the rate of fifty bushels or less per aere, some months before a crop is planted, or else on grass. The hydro-sulphuret of the lime by exposure beeomes changed after awhile to the sulphate of lime or gypsum, and thus its use to the lands, and especially clover erops.

The ammoniacal liquor from the gasworks is an impure solution of carbonate and acetate of ammonia—salts whieh possess eonsiderable value as manures. It is often too strong alone, and should therefore be diluted with some three times its bulk of water.

The liquid may be employed to wet compost heaps with good effeet. In watering garden plants or small fruits it should be eautiously used and largely diluted.

While the fumes of gas-tar are so destruetive to vegetation as to destroy most every plant it comes in eontact with, it at the same time is equally powerful in repelling and destroying insect life, and only requires due judgment in diluting and applying to become a valued friend to the fruit eulturist. The virtue of this tar, though so useful in preserving wood coated with it, cannot be used in the inside of plant houses until its dangerous fumes have passed off in the volatile matter. For preserving the shingles on roofs of houses it is known to possess remarkable value, while its usefulness for coating the lower ends of flower stakes, trellis and fenee posts, and all wooden structures exposed to moisture, is very great. While its disagreeable odor and eolor unfit it for painting dwellings, front fences or ornamental work, it is just the thing for rear buildings, fenees, tools, &e.

AMERICAN POMOLOGICAL SOCIETY.

The Seeretary was instrueted to issue eertifieates to members desiring to attend the bi-ennial meeting of the Ameriean Pomologieal Society, at Boston, on the 10th ult., and a committee was appointed to arrange for reduced fares.

The Association resolved to eombine pleasure with business by holding a sort of half meeting, half pic-nic, at the place of Staey Snowden, at Collingwood, on the Potomac, on the 15th inst.

HOLLYWOOD.

Knowledge direets practice, yet practice increases knowledge.

For the Maryland Farmer.

DROUGHT AND FLOOD.

Long experienee in and elose observation of the respeetive effeets of *drought* and *floods* on the soil, and on the interests of the husbandman, has induced me to select this subjeet as the text of an artiele for the forthcoming number of the *Farmer*.

I have often noticed that a season in whieh we have an average share of rain, well distributed throughout the season, and directly succeeding one of severe drought during the growing months, is one of remarkable productiveness.

This effect and result, whieh is so striking to the mind of the elose observer, is unmistakably true; and I think it may be aeeounted for and elearly proved to arise from the eauses that I shall enumerate.

The soil, during a season of drought, has comparatively a season of rest.

For the want of a sufficiency of rain, remunerative erops are not grown, henee no drought on the fertility in the soil is made. In the absence of the growth of cultivated vegetation, spontaneous produetion will usually stock the land with a growth of weeds sufficient to shade the surfaee. In times of extreme and protraeted drought, the great difficulty and expense attending the eulture of cultivated crops, and the want of promise of remuneration for the labor expended in eulture; often and generally, results in the land lying almost uneultivated for a season.

The eertain and aetual effeets of the condition of the soil, and the mode of treatment it receives, are as follows:

The *rest* it enjoys is surely reeuperative in its effects. The *shade*, supplied by means already explained, has long been known to have the same effect, and to a remarkable degree. The surface of the soil being hard and destitute of friability, effectually protects it from the exhaustive effeets of leaehing or washing out its direetly available fertility, of whieh I shall speak more fully in eonsidering the effect of *floods*.

To be brief, these eauses and effects may suffiee in treating this braneh of the subject.

FLOOD.

or excessive rainfall, we find to be directly opposite in its effeets on the soil, and on the permanent interests of the producer. The effects of an exeess of rainfall in a given time, and of the *floods* occasioned thereby, are deeidedly most apparent on soil under cultivation, and especially on land having a steep surface. Instead of the rest, and undisturbed condition of the soil, and of no drought

of its elements of fertility, as in the case of drought; in wet seasons, we have the full effect of one of the active agents of decomposition, moisture, perpetually at work in conjunction with that other essential agent, heat, rapidly resolving into a soluble condition both the organic and inorganic elements of the soil.

Under this condition, it not unfrequently occurs that the progress of the work of preparing and rendering plant-food assimilable to vegetation, in nature's vast laboratory, is so rapid, that an excess of it exists in the soil, and this excess of soluble pabulum, not taken up and utilized by the incumbent crop, being to a great extent free and not chemically combined with the soil, is directly exposed to the leaching and dissipating effects of a superabundance of water in the soil.

The most valuable elements of the soil, and those most expensive to supply, are dissolved by the excess of water flowing over and through the soil, and are conveyed by this most effective and rapidly working vehicle to lower lands, perhaps already surfeited with fertility, or into flowing or larger bodies of water whence it is irrecoverable.

The lamentable extent of the drought on the fertility of cultivated soils in warm, wet seasons, and especially in times of flood, is not generally realized, even by the most intelligent tillers of the soil.

The truth of this has been thoroughly impressed on my mind within the past ten days, which I have devoted mainly in responding to calls to numerous districts of Prince George's, Howard and Baltimore counties, for the purpose of counseling as to the best mode of repairing the immense damage caused by flood, in the destruction of roads, gullying of hillsides, &c., &c.

I found that my patrons, almost without an exception, seemed to measure or estimate their damage by the area actually removed, or the dimensions of the gullies produced, losing sight altogether of the immense and almost irreparable loss sustained by the less apparent removal and thorough dissipation of the soluble elements of fertility that had been leached out of the land not perceptably disturbed. The streams were all freighted with the precious elements thus dissolved out of the soil, and I feel that I am safe and within bounds in my estimate of the damage arising from this cause, in the districts that I have visited during and since the flood, when I state that I believe that the exhaustion of fertility of many *fields in cultivated crops*, which I visited, through the medium of dissolving and leaching out, has been greater in the past few days than that effected by the production of crops, in average seasons would be in as many years.

Steep lands, and those of a texture that are most sensitive to attrition, suffer most; hence it is injudicious to cultivate such lands any oftener than is absolutely necessary to set them in grass, in which condition they should be kept by every available means.

This branch of the subject-matter under consideration is so important to the cultivator, that the reader will pardon me, I trust, whilst I enlarge upon it for the benefit of a few, at least, of those in pursuit of knowledge on so important a subject.

What I particularly desire to urge on those having the management of lands of this character is, that it is not necessary, when they are to be reset in grass, to subject them to the exhausting effects of producing a rotation of crops in preparing them for grass. By harrowing or scarrifying the surface of failing grass land of the character we are considering, and seeding, rolling and top-dressing with coarse, rough manure, it may be re-set successfully, and all the ill consequences stated effectually avoided.

Great security against washing and gullying, occasioning such immense loss, may be effected by the judicious introduction of surface-water furrows, so arranged as to deposit the surplus water into the streams, in a manner to prevent the accumulation of it in such a volume as will be destructive.

I have found a heavy seeding with orchard grass-seed, and a good mulching with long manure, thoroughly effective in so preparing the surface of surface-water furrows, that they will resist the tendency to wash. The same principle applies in the management of all grass lands having too great a slope.

To those purposing to purchase a farm, I would volunteer the general advice, beware of *steep lands* that are inclined to wash.

J. WILKINSON, *Landscape Gardener*,
Aug. 21, 1873. *Baltimore, Md.*

FIVE ALLS.—The Five Alls was at one time a very common tavern sign in England. It consisted of five human figures each accompanied by a motto. The first was a king, in full regalia, with the legend, "I govern all;" the second, a bishop in pontificals, with the motto, "I pray for all;" the third, a lawyer in his gown, with the motto, "I plead for all;" the fourth, a soldier in regimentals, with the motto, "I fight for all;" and the fifth, a poor countryman, with sythe and rake, having for motto, "I pay for all."

THE VIRTUE OF CLOVER.

The following, showing how clover enriches the land, we copy from the *Live Stock Journal;*

"Clover, if we could only impress the fact upon the general farmer, is a plant that draws from the atmosphere and enriches the land. Other plants do this; but clover more. It has to do with the most vital and important element in manure, nitrogen, the very thing that is the rarest and most difficult to obtain. It improves the soil by its roots alone, if the crop is used for other purposes; this even if a seed crop is taken. How much more benefit, then, if a whole crop is turned down containing so much nitrogen? And you have the manure without working for it. The plant works for itself and for you. We get its strength from a free source, the atmosphere, the great storehouse that gathers from all sources, but most for the energetic farmer.

And you can make this plant work for your poor soil. A little manure applied on the surface will do this, and if plenty of seed is sown there will be a thick set. Then it needs a chance with the atmosphere, and plaster will add this greatly. With warm showers there will be a growth almost surprising. It will be dense, fine stemmed, and of a fair length, depending somewhat on the season. Cut this when it begins to lodge, which will be about the time blossoms appear, and then will be avoided all rot or mildew consequent on long, coarse lodging, and the yield will surprise you—two and a half or three tons, and such hay is not made from any other plant. And the second crop will be nearly or perhaps quite as good as the first."

LUCERNE VS. CLOVER.

At a recent meeting of the Fulton Farmers Club, Oxford, Pa., a member, Mr. Wm. King, exhibited some red, white, alsike and scarlet clovers and a specimen of lucerne, all taken up so as to show their comparative amount of roots. The lucerne had a root two feet five inches long, while not either variety of the clover had a root more than one-third of that length, and from this he argued that if the prevailing idea that it is the roots of clover that improves the land, is correct, then lucerne must be much better for that purpose than any variety of clover yet introduced.

Speaking of the length of roots of the lucerne, Mr. Chas. E. Coffin, of Muirkirk, Md., in his experiment in its culture, especially in the preparation of the soil, says: "We selected for this purpose a piece of land containing about one and a half acres, that had been used for several years as a yard for the cattle, and was, of course, in very good heart from their droppings; in fact, so rich that we did not put any manure on the land. The piece was plowed and subsoiled, so as to give the roots of the lucerne a good chance to strike down, as we found that they were inclined to do, from the fact that in digging the cellar for the barn, we found the roots of the lucerne had run down to the depth of four feet."

BREAD-EARNING.

As going to show the importance of united action among farmers and mechanics, the *Rural World* appropriately quotes Commodore Maury, whose interest in agricultural matters has long been acknowledged. The quotation is as follows:

"According to the census returns of 1870—as far as I can see, and as I can understand—there are in the United States, using round numbers, 12,505,000 break-earners. These twelve and a half millions subsist nations with the fruits of their labor; they give food, shelter and raiment to the 39,000,000 of souls that inhabit this country. Thus, you perceive that every bread-earner has, on the average, to fill a little more than three mouths.

"Of these bread-earners, 5,922,271 were engaged in agriculture, and 4,765,010 in other rural trades and callings, such as blacksmithing, carpentering, and the like, making, with their food dependents, a total of 23,830,000 souls, in round numbers, out of the 39,000,000.

"The manufacturers, including operatives and servants, earn bread for 1,117,000 souls. Commerce, including merchants, shop-keepers, sailors, clerks, peddlers, bar-keepers, &c., earn bread for 2,256,000. Railroad and express men earn bread for 595,000. Miners earn bread for 472,000.

"So it comes to this, according to this census: While agriculture and mechanics fill ten times as many mouths as commerce, twenty times as many as manufacturers, forty times as many as railroads, and fifty times as many as mining, yet the least of these, by combination and management—as one of your orators on a former occasion has told you—exercises three times the influence in the country, and thrice the power with the Government, that you do—all for the lack of the proper spirit among farmers to work and pull together."

In connection with this, *The World* promptly says that the farmers and producers, who should in reality constitute the governing power, must cease to be governed; they must claim their natural rights, and maintain them by means of prompt and efficient organization. Farmers' clubs may serve as a basis for a township organization; these to form the basis for a county, State, and national one. It is not desirable that such an organization should be political in character. Its whole aim should be to accomplish the greatest good for the greatest number. The time is at hand for the marshaling of the mighty forces that have hitherto been apparently at rest. The worth and value of the producer must be acknowlenged. It is time that equitable and just laws be enacted in the interest of farmers and workingmen. *The World* recommends united and immediate action among those directly concerned.

To stop cuts or wounds from bleeding on man or beast; use a mixture of equal parts of flour and salt bound on with a cloth.

For the Maryland Farmer.

AMERICAN SCIENCE No. III.

Of the readers of the *Maryland Farmer*, composed for the most part of intelligent agriculturists, we propose to constitute a jury, to try the issues joined between the new system of American Science, and the old received system of European Science. A verdict in favor of the former is confidently anticipated, when dictated by common-sense that is unswerved by authority, and unperverted by preconceived errors.

To obviate the serious objection commonly (and we may add justly) raised against the received system of science, namely, its tendency towards irreligion and atheism, we have in our first number presented a general outline, as it were, of American Science, in order to show the conformity of its principles to those of the Christian religion.

In our second number we offered plain answers to the pertinent questions "What is Science?" "How is Science acquired?" by suggesting that Science is the result of reasoning, and is acquired by the proper exercise of human reason. As an instance of reasoning, or of this process of the mind, we traced out plainly its several steps or stages in arriving at a scientific principle and a law of nature heretofore unknown—the new principle and law of muscular action. This, it was shown, is a most valuable principle and a most important law of the science of matter, being one of the physical laws—a class of the laws of nature by means of which all the motions and changes of form of material bodies or forms are effected or caused.

We promised in our last number to present in this a list of the physical laws; but before redeeming this pledge, we beg leave, in order to familiarize the reader with the reasoning process, or with the proper exercise of his reason, to offer to his consideration another instance of reasoning in arriving at a new and immensely valuable generalization or principle belonging to the science of mind, or to metaphysics. The generalization or scientific principle alluded to, is this: *All pleasure, temporal happiness or enjoyment of living creatures, is derived from or is the natural consequence of a due obedience to or observance of* THE INSTINCTS. The latter term is used to embrace the class or code of the laws of nature, designed to govern the actions or conduct of mind or of beings in this life.

In entering upon this instance of reasoning the several stages in this process, or of this compound mental function, as mentioned in a previous number, should be recalled, namely, the exercise consecutively of the four simple faculties of the mind: the observation, the imagination, the judgment and the common-sense; and it should be noticed here, that every act of reasoning is suggested by some particular fact or phenomenon that happens to arrest attention; and, further, that the whole process of reasoning is gone through with, or the whole of this compound function is performed in reference to this one particular fact that is first observed.

On walking up West street, between Washington and Congress streets, in Georgetown, D. C., the writer met a large herd of bullocks that were being driven, as was usual at that time, from our cattle market at Drovers' Rest to the market at Baltimore. On the opposite side of the street a butcher's boy, followed by a young full-blooded bull-dog, was also meeting this herd of cattle. The dog, when within a hundred yards of the herd pricked up his ears, and immediately dashed into their midst. Some of the most ferocious of the bullocks that were near him would rush at the dog, who would seize one by the mouth and bring him down on the pavement. After repeating this performance several times, the dog was driven off by the men having charge of the cattle.

The extreme delight evinced by this bull-dog in gratifying or in obeying its peculiar instinct, was what particularly arrested attention, and gave occasion to this exercise of the reason.

To explain or to account for this pleasure, the general proposition stated above was suggested by the imagination. We will not deprive the reader of the pleasure of his own independent induction in recalling the innumerable instances among living creatures that will be presented to his mind, wherein pleasure is evinced in gratifying or in obeying their instincts; suffice it to say, that no pleasure nor enjoyment could be recollected that was not readily traced to this source. The exercise of some mental faculty, or the performance of some bodily function, may be found as the source of every enjoyment in this life.

In looking abroad upon nature and realizing the application of this principle in its economy, the common-sense freely yields its sanction to this generalization.

THE PHYSICAL LAWS.

A list or catalogue of this class or code of the laws of nature, designed to govern the motions and changes of form of material bodies, is here subjoined.

In the Mosaic account of the creation it is related: "God said, 'Let there be light, and there was light.'" In these few words is expressed the fundamental principle of all religion, and the leading principle of American Science. The idea is here presented of a Supreme Being possessed of infinite wisdom and of infinite power; in whose will has been formed the vast plan of the creation, and who executes this plan on its various details by means of commands, ordinances or laws issuing from Him.

From the period of time, which we are told was "in the beginning" of the world, at which the above command was uttered, down to the present, light has been in the world, and will so continue while time endures. At the same period the physical laws, as subjoined, were ordained; and from that moment to the present these laws have been in operation whenever and wherever the conditions necessary to such operation were provided—whether by natural or by artificial means; and they will so continue to operate until time shall be no more.

1. Physical Law, (L. 1.) The Law of Interchange of Life: *Let there be an interchange of life among bodies that are in relation with each other throughout the universe.*

Since the phenomena commonly referred for explanation to the so-called law of universal gravi-

tation are more rationally explained by means of this new law of nature, the old law is rejected and ignored in American Science. The bodies of space are made to move in their orbits, and on their axes, that the object here indicated—this interchange of life may be the more effectually accomplished. This law serves also to explain many other natural phenomena that without such reference must remain inexplicable—such as those of commerce, of social intercourse among beings, &c.

2. Physical Law, (L. 2.) The Law of Gravitation: *Let all ponderable bodies belonging to the earth, tend to move towards the centre of the earth.*

The operation of this law, it will be observed, is confined as a scientific principle to the earth, although a similar law is doubtless in operation in all other bodies of space. The effect of the law, it will occur to every one, is to preserve the existence of such bodies, since without its operation their consistent molecules would soon be dissipated in space.

3. Physical Law, (L. 3.) The Law of Diffusion: *Let imponderable bodies be diffused to, and be merged in, other surrounding bodies or forms of matter.*

4. Physical Law, (L. 4.) The Law of Suction: *Let all adjacent bodies or forms of matter, move according to their mobility to fill a vacuum.*

5. Physical Law, (L. 5.) The Law of the Life-Current: *Let the life of adjoining forms pass into and along with a current of any form of matter.*

This newly discovered law is the grand agency or means of decomposition employed in nature in changing material forms.

6. Physical Law, (L. 6.) The Law of the Water-Level: *Let water or other liquids flow towards the spherical outline of the earth's surface; as to the surface of an ocean or large lake that is called the water-level.*

7. Physical Law, (L. 7.) The Law of Elasticity: *Let the molecules of elastic bodies tend to preserve their natural relative position.*

8. Physical Law, (L. 8.) The Law of Crystallization: *Let the molecules of crystalline bodies, when combining, be arranged in regular specific forms or crystals.*

9. Physical Law, (L. 9.) The Law of Chemical Combination: *Let the constituent atome of chemicals be combined in certain definite proportions.*

10. Physical Law, (L. 10.) The Law of Cohesion: *Let the molecules of material bodies unite to form distinct masses, or larger bodies of matter.*

11. Physical Law, (L. 11.) The Law of Vital Combination: *Let the specific life of animals unite with other materials, to form the fluids and tissues of living bodies.*

12. Physical Law, (L. 12.) The Law of Muscular Action: *Let the living muscular fibre, when innervated by the occasion of the nerve-fluid through its motory nerves,* BE ACTIVELY ELONGATED AND ERECTED; *and when enervated by having this fluid withdrawn from the same nerves, by means of an action in its corresponding nerve-centre, let the fibre* BE CONTRACTED.

This representation of the law of Muscular Action, it will be observed, is very different from —is the very reverse of that given in European Science, wherein *the contraction of the fibres* is regarded as the only *active state* of a muscle.

13. Physical Law, (L. 13.) The Law of Adhesion: *Let certain bodies, when brought together,* ADHERE *to each other.*

14. Physical Law, (L. 14.) The Law of Animate Generation: *On a proper union of the sexes in the higher order of animals and of vegetables, or on the formation of a ganglion or nerve-centre in the lower orders, let a new being come into existance.*

The physical laws, when operating in nature, are at times adjuvant and at other times antagonistic to each other.

The scentific principle applicable io the operation of all the physical laws is this: *the power exhibited in the operation of a physical law is in a direct ratio with the quantity of matter influenced by the law at the time; and the velocity of motion, produced by a physical law, is inversely as the resistance to this motion, encountered from the operation of some other physical law or laws.*

A careful study of the above-mentioned laws, with a view to a thorough acquaintance with their operation and bearing in the economy of nature, will serve to alter essentially and to render more rational our theoretical views or theories of many agricultural processes; but that which should serve to attach the most intense interest and the highest value to this list of laws, is the fact that all physical force, all the power in nature is associated with, and is derived from the operation of some one or more of these physical laws. Whenever it is desired to exert any force whatever, we must first invoke the aid of some one or more of this class of the laws of nature, by providing the conditions necessary to such operation, and then the force is at hand and may be employed.

A most serious error in European Science consists in attaching the motion of force or of power *to forms of matter*—to ponderables, as lead and other metals, &c.; to imponderables as heat, electricity, steam, &c.; to water and other liquids, &c., &c., instead of referring this power to the physical laws of gravitation, of diffusion, of the water-level, &c., by means of which these forms of matter are influenced or moved, and from the operation of which laws the force exhibited is derived.

L. M.

A FARMER'S DAUGHTER ON MILKING STOOLS.—A farmer's daughter, in the *Western Rural,* tells how to make a convenient milking stool:

Take a piece of board about eight inches wide and two feet long; nail short pieces across the ends to increase its strength, and to bore holes through; put two legs in one end eight or ten inches long, and one in the other or forward end a trifle shorter. Place the stool where you want to sit, the end with one leg in where you usually set the pail. Place the pail on one end of the stool and sit on the other; there you have your pail out of the dirt, and the cow cannot easily put her foot in it, as is so often the case when the pail is on the ground.

If the legs prove too long, saw them off a little. Some cows are so low that you are obliged to set the pail on the ground, in such case you can turn your stool around, try it, and see how you like it.

Cincinnati Industrial Exposition Buildings, 1873.

We present our readers above with a view of the buildings of the CINCINNATI INDUSTRIAL EXPOSITION, in which the Fourth Annual Exposition is to be held from September 3 to October 4, 1873. This great Exhibition, which is the foremost among similar enterprises in this country, is already well known to many of our readers but we give some details which are of general interest. The buildings are situated in the heart of the city, and are five in number, including the Art Hall which is connected with the rest by a bridge across Elm street, shown at the left of the picture. They furnish to exhibitors nearly eight acres of space, the Power Hall alone comprising over an acre of every variety of machinery in motion. The Exposition is divided into sixteen departments, and each of the great halls is filled with the myriad products of American industrial enterprise, displayed in the most attractive forms and with endless profusion. It may be justly termed a popular school of art and industry, teaching by object lessons of the most vivid and attractive description. Its immense popularity is partly due to the central location of Cincinnati, but mainly to the liberal character of its management, which is in the hands of three commercial associations of the city. There being no stockholding interest, all its revenues are directly expended in increasing its popular attractions, while the high character and impartiality of its awards has made them eagerly sought after by exhibitors from every part of the Union. The national character of the Exposition is indicated by the half-fare arrangements which last year extended over 15,000 miles of railway or nearly one-third the entire mileage of the United States; and by the attendance of over 600,000 visitors. A large increase is expected this year, under the newly adopted system of school excursions at reduced rates of admission.

THE
MARYLAND FARMER,
A STANDARD MAGAZINE

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BALTIMORE.

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BALTIMORE, SEPTEMBER 1, 1873.

TERMS OF SUBSCRIPTION.

One dollar and fifty cents per annum, in advance. Five copies and more, one dollar each.

TERMS OF ADVERTISING.

1 Square of 10 lines or less, each insertion	$1 50
1 Page 12 months	120 00
1 " 6 "	75 00
½ " 12 "	70 00
½ " 6 "	40 00
1 " Single insertion	20 00
Each subsequenti nsertion, not exceeding four..	15 00
⅛ Page, single insertion	12 00
Each subsequent insertion, not exceeding four..	8 00

Cards of 10 lines, yearly, $12. Half yearly, $7.
Collections on yearly advertisements made quarterly, in advance.

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Barnes Compton,	**Daniel C. Bruce,**
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PROFESSORSHIP.

A French Professor, who occasionally sends communications to the *Maryland Farmer*, and who has the best qualifications in his Profession, desires an engagement in one of our State Agricultural Colleges, especially in the west, as seen by his advertisement in this number of the *Maryland Farmer*. We earnestly recommend him to the Presidents of Colleges, in case of vacancy.

Besides French, which is his vernacular, he can teach Latin and Greek; also the elements of Spanish and Italian, and several other branches pertaining to a thorough classical education. He offers the best references.

T. C. DORSEY, ESQ.—Owing to the great increase of our subscription and advertisement list, with a general enlargement of our business and correspondence, we have engaged the services of Mr. T. C. Dorsey, as a general correspondent, who will attend to the advertising department and business connected with the Office of the Maryland Farmer.

KENT COUNTY AGRICULTURAL SOCIETY.—The third annual fair of the Kent County Agricultural Association will take place at their fair grounds, Worton Station, near Chestertown, to commence September 30th and continue three days. In addition to the usual agricultural exhibition, trials of speed will take place each day between some of the best horses in the county, and others who may contest for the prizes offered by the society.

AMERICAN MACHINERY.—We were gratified to learn from an Editorial in the *Scientific American*, at that the Vienna Exposition, the American machinery was successful over all competitors. Our English brothers "throwing up the sponge" before the contest was fairly begun. We had heard some time since from Mr. J. C. Durborrow, 55 Light Street, that more than 3,000 of the "Kirby Reapers and Mowers with the Durborrow Improvement, were sold last year in Germany, and that they had supplanted every other machine in the counties around Liverpool. Orders for England and Germany, are more than can be promptly supplied by the manufacturers. This turning the tables upon the old countries is gratifying to American pride, and reflects great honor upon the ingenuity and mechanical talent and enterprise of our Agricultural Implement Manufacturers and their employees.

RIPENING PEARS.

Now in the pear season it would be well to recollect and act according to, the directions of that eminent horticulturist, Josiah Hoopes, published last year in most of the horticultural papers and other journals. He says:—To make pears color handsomely, spread a blanket on the floor of a cool room, and then thinly and evenly place the fruit on the floor. A scond blanket must be spread over them, and in a short time the effects of this treatment will be apparent in the most golden-colored Bartletts and rich, ruddy-looking Seckels imaginable. Pears perfected in this manner rarely have the mealiness of their naturally ripened companions, nor do they prematurely decay at the core.

MARYLAND AGRICULTURAL AND MECHANICAL ASSOCIATION.

This association will hold on its Pimlico Fair Grounds, its Fifth Annual Fair, commencing on Tuesday the 7th, of October, 1873, and continue four days.

The indications are that this meeting will be a very successful one, and the crowd of visitors and exhibitors larger than ever before, owing to the increased facilities in reaching the ground. The Executive Officers are very active and zealous and have begun operations in time so as to avoid all hurry, and secure a perfect arrangement before the meeting takes place. The marshall, Richard F. Maynard, Esq., and Mr. W. D. Brackenridge, Superintendent of Exhibition Hall, are energetically having the grounds put in order, white-washing done, repairs made, and the Hall decorated, some additional buildings erected for facilitating business and for the greater convenience of reporters and Editorial corps. The accomodations for ladies will be improved. The track will be put in superior order even to what it was by the Maryland Jockey Club. The President Geo. S. Brown, Esq., W. S. G. Baker, Esq., Corresponding Secretary, and David C. Trimble, Esq., General Secretary and Treasurer, are gentlemen admirably suited to their respective offices, and are alive to their situation, showing a just appreciation of the importance of the work to be done by bending all their energies to make the forthcoming Fair, creditable not only to the Society, but one of which the whole State will be proud.

As to the means of reachiug the grounds, we learn that the usual omnibuses, wagons and other vehicles will be increased in number; the Northern Central as heretofore will carry passengers to Washington Heights for a trifle; from there, vehicles will take visitors to the Fair grounds, one mile for 25 cents, and the Pimlico and Pikesville Horse Railroad will be completed to, or very near to the Park limits. This way will, if the weather be pleasant, be the best and most acceptable to country visitors, as they can get in the street cars in any part of the city, and go directly to the Depot in the Park, have a view of this celebrated Druid Hill Park, walk on a firm shaded road through its most interesting portion only a quarter of a mile and reach the horse cars that takes them direct to Pimlico. By this quarter of a mile walk our rural friends will set at defiance the illiberality of the Park Commissioners toward the Agricultural community of the State, that add so largely each year by their Fair and Races, to the prosperity of Baltimore. It is, however, confidently hoped and expected that the Commissioners will comply, before long, to the public desire; at least, allow a track to be laid and used during these useful Exhibitions. But the great acquisition to the society, as we learn from its Officers, and chief mode of getting to Pimlico for the masses will be by the Western Maryland Railroad, from a station on which there will be completed an avenue 70 feet wide, firm as a pavement, direct to Pimlico Fair Grounds, over level land and only the distance of half a mile. Here will be vehicles for such as are indisposed to enjoy this pleasant, short walk. Possibly some enterprising person or company may on this avenue start horse cars or a dummy engine. The association have arranged also a better plan for Awarding Premiums, which is likely to give more satisfaction in that line, hence the absence of the names of "Awarding Committees" on the printed Premium List for this year.

It will be seen by examination of the Premium List, which we published in full in our last number of the *Maryland Farmer*, that the amount of Premiums have been increased greatly, offering nearly ten thousand dollars in Premiums.

The Officers have assurance of a much larger number of Exhibitors and of greater variety of fine stock and other articles exhibited.

It is in the best spirits and unalloyed feeling of confidence we write our anticipation of a glorious re-union of the farmers and their families, and all well-wishers to the progress of Agriculture, on the Pimlico Fair Grounds in 1873.

WELCOME VISITORS.—We were highly gratified by a visit to our sanctum, from T. L. Payne, Esq., Editor of the "*Southern Planter and Farmer*," Richmond, Va., one of the ablest and best conducted Agricultural Journals in the South.

CAPT. T. G. HOLT, General Superintendant of the Georgia State Fair, also did us the honor to call on us and extended to us a cordial invitation on the part of the city authorities of Macon, to be guests of the city, at the meeting of the association, for which courtesy we are very grateful. As will be seen by the advertisement in our advertising columns, the city has added a large sum to the Premium List of the Society. Some of them are splendid Premiums, larger than any ever offered for like objects in the union, and must attract a great number of competitors from all parts of the country. Such munificient liberality will find its reward. We heartily wish the enterprise all the success its most zealous friends can desire or hope for.

AGRICULTURAL COLLEGES.

We call the attention of our readers to the following sensible and practical views on the aims and purposes of an Agricultural College. The extract we make is from a paper on Agricultural Education by Mr. George T. Anthony, published in the Report of the Kansas State Board of Agriculture for 1872.

These views coincide with ours to a great extent. It is true we would suffer the classics to be taught to such students as desired to learn them, but all branches of a literary education should in our judgment be subject to the demands of Agriculture as a science illustrated by practice. Why call it an Agricultural College if that pursuit and the sciences necessary to its highest development are to be ignored, and the classics with other literary studies are alone, or nearly alone, to engross the attention of students. It is a farce to say we have an Agricultural College, and not a student, in it, able to tell wheat from chaff, or one breed of cattle from another, or able to explain botanically how plants grow, and how one plant differs from another. We commend to the "sober, second thought of the trustees and faculty of the Maryland Agricultural College, and to all friends of that very important institution, the following views of Mr. A., who had reference particularly to the flourishing College at Manhatten, Kansas. Our western friends are far ahead of us in the old State, in solving the great problem of agricultural and Mechanical education.

"To make an Agricultural School of real value, t must embrace a course of instruction and a system of teaching radically different from a literary institution. You cannot pin an Agricultural College to the tail of the old college kite. It must be *the kite itself*, with a tail of its own, kept free from the musty, classic rubbish of the old collegiate course. An Agricultural College can never be run upon Greek and Latin stilts, but must be brought down to the solid footing of plain instruction, theory, science and practice of Agriculture and Mechanics. Manual labor must be a part and parcel of College discipline and instruction. The hands must be educated to apply what the head is made to understand. The student must enter it as young men do the counting room or machine shop—*to learn a trade.*

The College must be supplied with ample grounds for the cultivation of fruit, grain, vegetables, ornamental trees, shrubbery and flowers. The studies in school-room and laboratory must be coined into the solid currency of practical results, and sealed with sweat of the student's face upon the farm.—Botany, zoology, minerology, geology and chemistry must be taught with reference to their application to the life-work of the student, and not as pure science, that he may go out unencumbered with unpractical theories and a vague understanding of the uses of his learning. A shop well supplied with the needful tools to build rustic arbors and plain trellises; to keep buildings, fences, gates and implements in repair, is an indispensable adjunct to an institution of this kind, and their use a necessary part of duty and discipline for the student, always, however, under proper institution. In short an Agricultural College should be unlike any other college. It should be in close sympathy with the best and much the largest portion of our people—the producers. It must feel every throb of the great public heart, and answer every demand of those who live by labor and desire to educate themselves in the most intelligent and acceptable methods of labor. It must graduate *men* fit for farmers and proud of a life-calling that is elevated and honored by their pursuit of it."

AVERTISING IN THE MARYLAND FARMER.

We call attention of our patrons and others who have articles for sale to the importance of advertising, what they have for sale, in our columns, so that our numerous readers may know where such things may be had. Lately we have had an enquiry from Georgia as to where Shetland or other sorts of the Pony Breeds are to be had, the price etc.; also where *Shultz* wheat and other kinds are to be had; poultry of different sorts, etc. If persons having such articles or anything they wish to sell would advertise in our journal, they would find no doubt a ready sale. People want things but do not know where to get them, that is, near home. Many have an objection to buying far from home.—This season a gentleman advertised eggs for sale at $3 per dozen, and in a short time, he had more orders than he could fill, and we could name dozens of similar cases where a few lines of advertisement caused a ready market where none seemed likely to be had before the advertisement appeared. Our circulation is large, and mostly confined to a responsible and progressive class of people, who are on the lookout for the best sorts of stock, seeds, plants, poultry, etc. Advertising in the *Maryland Facmer*, certainly has, and will continue to pay those who avail themselves of the opportunity.

Maryland Farmer Book and Job Printing Office.

TO OUR CORRESPONDENT, POLLY PECKED, SPINSTER.—The article came too late for insirtion in this number, and could not have been admitted until our rule was complied with, which is to have the *real* name of the writer, before any communication can be admitted. Of course, the secrecy desired by a writer, will be respected by us. If, therefore, P. P. will send us her full address, it is very likely the conducting editor, on his return from his pleasure trip, will approve of its publication, though it is very spicy and *peckish* against the *lords of creation.*

LARGE LEMONS.—We were presented by the polite bar-keeper of that highly popular House—Guy's Hotel—with an enormous lemon, measuring eleven inches in circumference one way and nine inches the other. It had a thin rind, and came from abroad ; we learn that the whole cargo, was of an uncommon character of lemon, and sold readily at $8 per hundred. Verily, Horticulture is on the advance everywhere.

STATE FAIRS.

The following is a list corrected up to this date of the various State fairs to be held this season, with the localities in which they will be held, and their dates:

American Institute, New York	Sept. 10, Nov. —
American Pomological, Boston, Mass	Sept. 10, 12
California, Sacramento	Sept. 15, 21
Carolinas, Charlotte, N. C	Nov. 25, 28
Cincinnati, Industrial	Sept. 3, Oct. 4
Colorado, Denver	Sept. 30, Oct. 5
Cotton States, Augusta, Ga	Oct. 21, 24
Georgia, Macon	Oct. 27, 31
Illinois, Peoria	Sept. 15, 20
Indiana, Indianapolis	Sept. 10, Oct. 10
Iowa, Cedar Rapids	Sept. 8, 12
Kansas, Topeka	Sept. 22, 25
Maine, Bangor	Sept. 16, 19
Maryland, Baltimore	Oct. 7, 10
Michigan, Grand Rapids	Sept. 16, 20
Montana, Helena	Sept. 29, Oct. 4
Minnesota, St. Paul	Sept. 23, 25
Mississippi, Jackson	Oct. 13, 18
Nebraska, Lincoln	Sept. 1, 6
New England, Boston	Sept. 2, 5
New Hampshire, Manchester	Sept. 30, Oct. 2
New Jersey, Waverly	Sept. 16, 19
New York, Albany	Sept. 24, Oct. 1
North Carolina, Raleigh	Oct. 13, 18
Ohio, Mansfield	Sept. 1, 5
Oregon, Salem	Oct. 6, 11
Pennsylvania, Erie	Sept. 30, Oct. 3
Quebec Provincial, Montreal	Sept. 16, 19
Rhode Island, Providence	Sept. 9, 11
St. Louis Association, St. Louis, Mo	Oct. 6, 15
Texas, Marshall	Sept. 30, —
Vermont, Rutland	Sept. 9, 12
Virginia, Richmond	Oct. 28, 31
Wisconsin, Milwaukee	Sept. 22, 26

POULTRY SHOWS.

Connecticut, Hartford	Nov. 18, 21
Eastern Ohio, Youngstown	Dec. 17, —
Maine, Portland	Jan. 13, 16
Massachusetts, Boston Music Hall	Feb. 4, 11
Michigan, Detroit	Dec. 17, 23
Middlesex County, New Jersey	Feb. 11, 13
Monmouth County, New Jersey, Freehold	Jan. 7, 10
New England, Worcester	Jan. 20, 22
New Hampshire, Manchester	Feb. 11, 13
Northern Ohio, Cleveland	Jan. 23, 29
Pennsylvania, Philadelphia	Dec. 5, 13
Western New York, Buffalo	Feb. 14, 19
Western Pennsylvania, Pittsburg	Jan. 14, 18
Winona County, Minnesota, Winona	Dec. 26, 28

DISSOLVING BONES—ANOTHER PROCESS.—The following is an English process, and the fertilizer produced is said by the originator, Lord Pusey, to be in every respect equal to the superphosphate made by the ordinary processes. We do not vouch for the statements made, but give the recipe for trial:

Collect the bones and break them up as well as you can with a sledge hammer or an axe. Place them in a barrel sufficiently tight to hold liquids, depositing a little at a time, mixing in with them as you go, dried, finelo pulverized swamp muck—enough to fill all the between the bones, say one part of muck to four parts of bones. Cover the top with a six or eight inch layer of muck alone, after which pour on the urine of the premises from day to day, keeping the mass moist. In from four to six weeks the bones will be entirely dissolved, and ready for application to the soil.

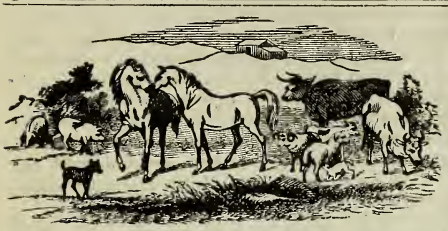
The muck mixed is aid to the decomposition of the bones, and the thick mass of muck at the top is to act as a deodorizer, and to prevent the escape of ammonia. If there is an escape, as shown by the smell arising, it may be stopped by throwing on a little more fresh muck.

THE ONION AS FOOD.—It is stated that the onion forms one of the common and universal supports of life in Spain and Portugal. Authority shows according to analysis the dried onion contains from 25 to 30 per cent. of gluten, and ranks in this respect with the nutrious pea and the grains.

"It is not merely as a relish that the wayfaring Spaniard eats his onion with his humble crust of bread, as he sits by the refreshing spring ; but it is because experience has long proved that, like the cheese of the Englsh laborer, it helps to sustain his strenth also, and adds, beyond what its bulk would suggest, to the amount of nourishment which his simple meal supplies."

REFINED homes are the end of civilization. All the work of the world, the railroading, the navigation, digging, manufacturing, inventing, teaching, writing, fighting, are done, first of all, to secure each family in the possession of its own hearth ; and, secondly, to surround as many hearths as possible with grace and culture and beauty. The work of all races for five thousand years is represented in the difference between a wigwam and a lady's parlor. It has no better result to show,

Live Stock Register.



BREEDING PONIES AS A BRANCH OF AGRICULTURAL INDUSTRY.

In the pursuit of agriculture, it is well not to have specialties except under peculiar circumstances, but labor and crops should be diversified, and such should be the case with stock-breeding. We have often thought that this branch of farming or rural industry should have more attention paid it. There is a demand for ponies, and that demand is daily increasing. Pony phæton driving and horse-back exercise for women and children is becoming fashionable, and the want for such animals is increasing and must be supplied ; hence the rearing of ponies will pay well. It will cost not much more to keep these hardy little horses in the breeding stud than to keep goats. They live on the scantest and roughest fare and are hardy, requiring little or no shelter. But we will let the Field Editor of that valuable journal, the *Turf, Field and Farm* tell us about them, as he does it in a better manner than we are able to do :

" At the gates of all the larger public parks, and at the entrance of many of the suburban villages in Europe large numbers of donkies and ponies are kept for the use of the public at a moderate charge. In this country, while a senseless prejudice might prevent the use of donkies, we have no doubt ample use would be found for immense numbers of ponies ; and at our fashionable bathing and watering places the livery-stable keeper would probably derive a greater net revenue from the hire of ponies for children to ride and of pony-chaises for ladies to drive, than from his more expensive horses.

" We know of but two parties in this country who are breeding ponies for sale. From them we learn that while the expenses are trifling, and the risks next to nothing, the profits are great ; indeed, one breed of these ponies, the Shetland, will thrive under conditions where the hardy black-faced sheep of the Scotch moors would perish from exposure and starvation.

" We doubt whether there is any stock raising in a small way in this country so profitable as the rearing of beach ponies in Virginia, which originated by accident, and which has been carried on for many years. On Chincoteague, a long narrow island, which lies off the coast of the Eastern shore of Virginia, is a large herd of ponies, as wild as mustangs of the prairies and pampas. As the tradition goes, they are descended from a lot of horses which swam ashore from a Spanish vessel wrecked upon the island many years before the revolution. This herd of wild ponies belongs to a joint stock company located on the main land. In the month of June of each year the herd is 'corralled' in pens made of stout fence rails, brought from the main with great labor and at considerable expense. Those destined for sale are lassoed, hobbled, and shipped off, to be broken and put into shape, and the yearlings are branded and castrated.

" The annual 'penning,' as it is called on Chincoteague is, all through the seacoast counties, the great event of the year, and the semi-amphibious inhabitants of the neighboring islands look forward to its coming with all the pleasurable anticipations which the Italians experience on the approach of the carnival. Men, women and children pour into the Island from every direction, on boats of every style of rig ; for their entertainment the surrounding waters contribute their stores of fish and crabs, of clams and oysters ; whisky flows as if from a perennial spring, and from their hiding places are brought forth the finer liquors which never paid tribute to the customs, and which are thrown upon the beach by the Eastern gales which make this low lying shore a terror to the passing mariner ; the saturnalia commences, and for days is kept up with all the rollicking fun of a Donnybrook fair.

" If the reader wishes to study a primitive people as primitive as the red men of the prairies, a people as brave and hardy as the ancient Vi-kings upon the wave, and as simple as children upon the land, let him in the genial month of June take a yatch and run down along our coast, between the main-land and the narrow islands which lie to seaward, like natural breakwaters, from Cape May to Florida, let him stop at Cobb's Island, and there taking on board the Nathan, or one of the boys, put about for Chincoteague, and witness the 'penning' of the ponies.

" These 'beachers,' as they are called in Accomac, are, we believe, the only fixed breeds of American ponies ; all others are merely small horses or mustangs. The Island on which they are bred is a mere sand spit, or bar, but a few feet over the tide, Its only vegetation is a coarse, salt, marsh-grass, and is exposed, without the slightest shelter, to the tremendous Easterly gales which sweep, without impediment, across the whole width of the Atlantic. That these ponies should increase and thrive under such conditions is sufficient proof of their hardihood. But this is not all. This Chincoteague herd furnishes some of the most enduring and easy gaited saddle nags anywhere to be found. The writer remembers seeing one at Princess Anne, in Maryland, pacing along at an eight mile an hour gait, with a rider on his back who must have weighed within twenty or thirty pounds as much as he did.

" Anywhere within the United States where the snow does not lie for more than a few days, and where the land is of medium quality, in all the lower counties of Virginia, Maryland and North Carolina, which are not naturally grass producing, the breeding of ponies to be sold so low as fifty

dollars each, might for many years to come prove a most profitable business, more particularly now that they have so much land turned out for the want of labor to cultivate it.

"The breed which can be imported at least expense is undoubtedly the Shetland, which can be delivered on board of ship at Glascow at from three to five guineas each, and we doubt whether the lot sold recently in Baltimore at $125 round, originally cost more than $20 each; but except for bleak mountain farms, the Shelties are not the most desirable. There are others to be had in Europe, but at a somewhat higher price, which are much handsomer, and which, if judiciously crossed now and then with undersized thoroughbreds, could be raised to greater advantage. Among them is the Welsh, the New Forest, the Exmoor and the Connemara breeds. The first is said to be descended from Spanish barbs cast on the Welsh coast from the wreck of the famous Armada in Queen Elizabeth's day; the New Forest and Exmoor ponies are hardy and handsome, the latter having been much improved by careful crossing with small Arabs. The Connemara breed is described by Miss Middie Morgan—very high authority—as miniature thoroughbreds, with all the beauty and qualities, save size, of the race, the horse."

ORIGIN OF THE JUSTIN MORGAN HORSE.

Mr. Isaac Richards, at a late meeting of the Randolph, Vt., Farmers' Club, said:

Mr. Morgan came to this town on a visit, riding an English mare, smoothly and handsomely built, and a good trotter. In a pasture adjoining the one into which he turned this mare was a French stallion, of no particular repute. During his stay, the mare and steed got together, and the mare proved in foal, to the great sorrow of Mr. Morgan. This was in the days when money was scarce and stock was used as a circulating medium. Young Morgan was appraised at $10 the fall after he was foaled, and was taken at this price by Mr. Justin F. Morgan, in payment of a debt due him from his father, the elder Mr. Morgan. At the usual age he was cast for castration, having up to this attracted very little attention. Some one standing by thought, however, that he saw in the colt many good points, and finally induced the owner to let him up and keep him for stock. This was the father of Vermont Morgans, by mere chance, as it were, saved to bless the human race. As all know, his fame increased with age, until at the age of thirty or thereabout, he came to his death by being kicked by another horse.

Perhaps the most acceptable kind of flattery consists less in eulogizing a man's actions or talents, than in decrying those of his rival.

SCIENTIFIC.

CLEANING WOOL.—Many of our farmers pay but little attention when cleaning wool to the kind of water used in the operation; but it will be seen that this should always be taken into consideration. Thus waters containing lime should be carefully avoided, since this constituent combines with the suint, thus forming an insoluble soap, which seems to produce unpleasant effects in the processes of dyeing. For log-wood and red-wood dyes of like character, the effect appears to be unimportant; but when quercitron, fustic, and madder are used the effect is quite different, and is often very deleterious.

COAL-ASHES.—The followlng experiments of M. Lebouf, of Argenteuil upon the value of coal-ashes, shows that in the ashes alone, without an admixture of soil or any manure, plants may grow and come to maturity. Thus, having filled three pots with ashes, he planted in the first wheat, in the second oats, and in the third strawberries. The growth was accomplished during the summer, the wheat and oats ripening and producing full heavy grains.

The straw of the wheat attained a height of about 4 feet 6 inches, while that of the oats grew to about 3 feet 6 inches. These experiments have been several times repeated, with the same success.

TO RESTORE COLOR TO FABRICS.—When color on a fabric has been accidentally or otherwise destroyed by acid, ammonia is applied to neutralize the same, after which an application of chloroform will in almost all cases restore the original color The application of ammonia is common, but that of chloroform is but little known. Chloroform will also remove paint from a garment or elsewhere, when benzol or bisulphide of carbon fails.

A WRITER in *Les Mondes* says that common mercurial ointment is found to be remarkably efficacious in preventing the formation of rust upon articles of iron and steel, such as gun barrels and the like,

PETROLEUM is said to be preferable to the fatty oils for cleaning weapons, especially gun barrels, as it does not become rancid and has greater solvent powers for dirt and grime.

EFFECTS OF OXALIC ACID ON SEED.—An English scientific journal states that oxalic acid promotes the sprouting of seeds, so that seeds forty years old will germinate by its application. The method is to soak the seeds for one or two days in a solution of oxalic acid, till they commence to sprout, when they are taken out and planted.

HORTICULTURAL.

OUR FRUIT FARM.

BY DAVID Z. EVANS, JR.

In the June number of the *Rural Alabamian*, Mr. F. R. Elliott wishes to have the number of arces in fruit, and thinking that the article might be of some value to our readers of this paper, without detracting from its value to Mr. Elliott, I send it for publication.

APPLES.

Of apple orchard we have some seven and a half or eight acres. The old apple orchard is made up of such varieties as *Maiden's Blush, Grindstone, Vandevere, *Russetts, Hays, Pennock, *Caleb, Townsend, Winesap, and Bellflower. This orchard is about one and half acres in extent, is in good land with clay subsoil, and although old, bears full crops.

The young apple orchard is about six acres in extent, and comprises such sorts as *Early Harvest, *Cornell's Fancy, *Caleb, *Maiden's Blush, Red Astrachan, 20-oz. Pippin, *Smokehouse *King of Tompkin's Co., *Fallawater, Smith's Cider, *Baldwin, Wagner, Strode's Birmingham, *Summer Queen, Winesap, Roman Stem, Townsend &c.

Both of the orchards have been, and are, well cultivated and liberally manured, for we believe in doing both to insure a good growth and paying crops each year.

PEARS.

In regard to pears, we have quite a good-sized plantation, and are increasing it each year. The orchard is now eight acres in size, but two-thirds of it being the *Duchess, Dwarf, *Bartlett, Standard, and *B. DeAnjou, dwarf, while the other part contains *Onandaga, Buffam, *B. DeAnjou, *Duchess, B. Superfine, *Seckle, Osborne, *Louise Bonne, *Brandywine, *Madeline, *Lawrence, W. Doyenne, Kingcessing, *Vicar, Lodge, *Howell, DeFontaine, Glout Mosceau, Steven's Gennessee, Kirtland, Doyenne, Bussett, Urbanist, Flemish Beauty, B. Superfine, *Sheldon, Bartlett, B. Lucrative, &c.

The orchards always get the very best attention, being plowed and cultivated every year and liberally supplied with fertilizing matter. By thinning out our fruit and shipping only first-class fruit, put up in the best order, we always command high and paying prices. The soil is somewhat on the order of a clay loam and from that to somewhat lighter, supported by an excellent subsoil. The orchard has been thoroughly drained with tile.

PEACHES.

Although our peach orchard does not compare in size very favorably with the orchards of many of our neighbors, we have some eight acres planted with this fruit, thinking better to have a sort of "mixed" fruit growing rather than be wholly dependent upon a specialty. Our receipts, so far, show us to be in the right. The orchard is planted almost wholly with *Hale's Early, *Troth's Early Red, Smock, Old Mixan Free, Druid Hill, *Heath Free, *Heath Cling, October Yellow, *Crocket's White, Stump-the-World, *Early York, Langworthy Late, Jacques' Rare Ripe, Ward's Late, President, Susquehanna, &c.

Most of the varieties of fruit named here, as well as the majority of the sorts of other fruits named elsewhere, have proved good; but those which are especially designated as good by a significant * are, by us, considered especially desirable.

RASPBERRIES.

We have planted quite largely of this fruit, not to consider it as specialty, having some seven acres and a half planted, some two-thirds of which are of the Brandywine variety, a kind which does not winter kill with us, while the remainder of the plantation is made up of the Philadelphia, a sort which is occasionally a sufferer from severe and changeable winters.

CHERRIES.

In cherries we have no very large list of varieties as some have, but confine ourselves, for market purposes, to the Early Richmond, of which we have some five acres. In our lawn we have an assortment of early cherries, among which are the Duke and Morello cherries, and, although we market from these trees, too, they being large and old, we have not enough to name them on this list, for other fruit trees, pears, &c., would also have to be included under theis appropriate heads.

VINEYARD.

Our vineyards are of good size, well regulated and cultivated, pay well, although of only about eight acres in extent, principally of the Concord variety, and in a small part with the Clinton. We are yearly making additions to all of our fruit plantations, and will continue to do so until we have all of the farm down to fruit except certain small, unfavorable pieces, on which we will raise ordinary farm crops—corn, wheat, grass, &c.—for we keep a good-sized stock.

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*To save time and space, I have designated the varieties which do well by prefixing a *, whether they are in the old or in the young plantation. This prevents needless repetition.

In our experimental vineyard and plantation, we have Maxatawny, *Allen's Hybrid, Iona, *Telegraph, Salem, Israella, Goethe, Roger's Hybrids, Nos. 15 and 19—the *Agawam and Merrimac; *Catawba, Diana, *Hartford Prolific, &c. We have quite a number of the Isabella vines, large ones, but they have not proved themselves, lately, able to come up to even an ordinary good standard, the fruit refusing to ripen well.

CURRANTS AND GOOSEBERRIES.

Our plantations of these are but small, being only about a half acre for the former and one acre for the latter, although this coming spring it is our intention to very materially enlarge the size of the piece devoted to these two fruits.

Of currants we have the *Verseilles, Cherry and *Red Dutch, and of gooseberries we have *Houghton's Seedling, which, for general market purposes, cannot be exceeded.

STRAWBERRIES.

We now have seven acres of strawberries on our place and are making new ones or enlarging old ones every year. The principal variety planted is Wilson's Albany Seedling, while we have other good sorts, such as the * New Jersey Scarlet, Cutter, Downer's, French's Seedling, &c.

In reading the above list of fruits which we raise, it must be borne in mind that we do not study our own individual fancies, but cater to the tastes of our customers, for we raise fruit for market, and not home use exclusively. Climate influence, kind of soil, and particular exposures, of course, govern us somewhat in our selection, and is, perhaps, the first thing of importance, after which we select such as will sell readily and produce uniformly good crops each year, with thorough cultivation and attention.

Town Point, Cecil co., Md.

TOMATO CATSUP.—Mrs. Page, in the *Prairie Farmer*, gives her infalliable receipt as follows:—Take ripe tomatoes (the small red ones are preferable,) wash, but not skin them, and thoroughly boil one hour, and then put them through a hair seive, and to one quart of juice add one tablespoonful of cinnamon, one of black pepper, half of nutmeg, one of good mustard, two-thirds teacupful of salt. Boil three hours, and then to one quart of juice add one pint of pure cider vinegar. Boil half an hour longer, bottle hot and seal up. This catsup will keep for years, and require shaking before using. A porcelain kettle should be used.

The Japanese are importing short-horn cattle from Ohio.

The Poultry House.

HOW TO FATTEN CHICKENS.

The following on fattening fowls, we copy from the *Boston Journal of Chemistry:*

It is hopeless to attempt to fatten chickens while they are at liberty. They must be put in a proper coop; and this, like most other poultry appurtenances, need not be expensive. To fatten twelve fowls, a coop may be three feet long, eighteen inches high, and eighteen inches deep, made entirely of bars. No part solid—neither top, sides nor bottom. Discretion must be used, according to the size of chickens put up. They do not want room; indeed, the closer they are the better—provided they can all stand up at the same time. Care must be taken to put up such as have been accustomed to be together, or they will fight. If one is quarrelsome, it is better to remove it at once, as, like other bad examples, it soon finds imitators. A diseased chicken should not be put up.

The food should be ground oats; and may either be put up in a trough or on a flat board running along the front of the coop. It may be mixed with water or milk—the latter is the better. It should be well soaked, forming a pulp as loose as can be, provided it does not run off the board. They must be well fed three or four times a day—the first time as soon after daybreak as may be possible or convenient, and then at intervals of four hours. Each meal should be as much and no more than they can eat up clean. When they have done feeding, the board should be wiped, and some gravel may be spread. It causes them to feed and thrive.

After a fortnight of this treatment you will have good fat fowls. If, however, there are but five or six to be fattened they must not have as much room as though there were twelve. Nothing is easier than to allow them the proper space; as it is only necessary to have two or three pieces of wood to pass between the bars and form a partition. This may also serve when fowls are put up at different degrees of fatness. This requires attention, or fowls will not keep fat and healthy.

As soon as the fowl is sufficiently fatted, it must be killed; otherwise it will not get fatter, but will lose flesh. If fowls are intended for the market, of course they are or may be all fatted at once; but if for home consumption, it is better to put them up at such intervals as will suit the time when they will be required for the table.

THE DAIRY.

PROPER TIME FOR CHURNING.

It is very difficult, if not impossible, to bring butter from fresh milk, or from thin cream that gathers upon milk kept cold for twenty-four hours. It has been supposed that cream should sour before butter can be made. This is an error. Numberless trials have shown that sweet milk and sweet cream yield butter, as much and as easily as sour cream, provided they have stood for some time at medium temperature. The fat of milk exists in minute globules which are inclosed in a delicate membrane. It was natural to suppose that in fresh milk this membrane prevents the cohesion of the fatty matters, and that when, by standing, the milk or cream becomes capable of yielding butter after a short churning, it is because the membrane has disappeared or become extremely thin. Experiments show, in fact, that those solvents which readily take up fat, as ether for example, dissolve from sweet milk more in proportion to the length of time it has stood at a medium temperature.

Readiness for churning depends chiefly upon the time that has elapsed since milking, and the temperature to which it has been exposed in the pans. The colder it is, the longer it must be kept. At medium temperature, 60° to 70° Fahrenheit, it becomes suitable for the churn in twenty-four hours, or before the cream has entirely risen. Access of air appears to hasten the process. The souring of the milk or cream has, directly, little to do with preparing it for the churn. Its influence is, however, otherwise felt, as it causes the caseine to pass beyond that gelatinous condition in which the latter is inclined to foam strongly at low temperatures, and by enveloping the fat globules, hinders their uniting together. In churning cream that is very sour, the caseine separates in a fine, granular state, which does not interfere with the gathering of the butter. Even the tenacious, flocky mass that appears on gently heating the sweet whey from Cheshire cheese, may be churned without difficulty after becoming strongly sour.

Cream churned when slightly sour, as is the custom in the Holstein dairies, yields butter of a peculiar and fine aroma. Butter made from sour cream is destitute of this aroma, and has the taste which the Holstein butter acquires after keeping some time. Stirring of cream does not prevent souring, but rather hinders it, by increasing access of air; it may be advantageous in making the souring uniform.

The temperature while churning, which is most favorable for gathering the butter with the proper softness and adhesiveness, is 66° to 70° Fahrenheit. The melting point of butter made on dry hay is slightly higher than that produced on grass, or while feeding with oil cake; correspondingly we find that in winter it is customary to churn a few degrees warmer than in summer. Sour cream may be cooled by direct addition of water, but sweet cream is thereby prevented from yielding its butter. In the latter case, cold skim-milk may be used, or the cream should be cooled by water external to the churn.

The duration of churning, as is well recognized in practice, is of great influence on both the quality and quantity of the butter. Half an hour, at least, is considered essential by experienced dairymen for churning, when the volume of cream is considerable, and an hour, or even more, is not thought too much. The object of churning is to bring the fat globules of the cream or milk, which, by standing a suitable time have become divested of their envelopes, into contact, so that they unite in a coherent mass. The gentler the motion to which the cream is subjected, the more slowly goes on the process of agglutination, and the closer and finer the union takes place. By slow churning the butter leaves the churn in a nearly finished condition, and requires a comparatively small amount of working to complete its preparation. On the contrary, when butter is made to come in a few minutes by violent agitation, as in the strife for the repute of quick work in case of trials of new churns, there is obtained, instead of good butter, in dense, large clumps, a doughy mass consisting of little balls of fat, mixed with butter milk and cream, and full of air bubbles, which no skill in working can convert into good butter. While it is true that violent churning will produce a greater weight of so-called butter, it is demonstrated by chemical analysis that the milk or cream thus treated does not yield so much of its fat as is obtained by a slower and gentler agitation. The greater weight of the product is due to the admixture of butter milk, which is retained in the spongy mass. The fact that churning must go on for some time before any visible change is effected in the cream, and that the butter "comes" somewhat suddenly, is due to the exceeding minuteness of the fat globules, of which myriads must unite before they attain a size visible to the unaided eye.—*Practical Dairy Husbandry.*

The great question of life is the suffering we cause; and the utmost ingenuity of metaphysics cannot justify the man that has pierced the heart that loves him.

GRAPE CULTURE.

THE EUMELAN GRAPE.

Peter M. Gideon, of Minn., writes to the *Prairie Farmer* that, in his opinion, the Eumelan is the best of the black grapes, and we quote his remarks which seem to us justifiably enthusiastic:

"Of all black grapes that I have seen or tasted, the Eumelan is the earliest, best table grape, splendid in bunch and berry, very saleable, first in market; a prodigious bearer, always ripe before early frosts; strong grower, hardy vine, ripening, more wood than any other vine we had, notwithstanding it yielded double the fruit of any other vine of its size, the yield being some seventy-five pounds. Every bunch ripened evenly, though only ten feet of space on trellis, whilst two Concords, same age, each nearly as large (thirty feet on trellis,) yielded only about twenty pounds, same soil and culture, less in bunch, and not so good in quality. Evidently the Eumelan is the grape for the North. Safe in all seasons, and no dropping of berries if left out as long as any grape dare be left out of doors. But as to its wine qualities, I can't say; don't care. I grow grapes only for the joy and comfort of home.

"If short of space, the Eumelan is the grape. It gives the greatest yield, is sure to ripen, and is the most luscious of all black grapes we have yet seen. But, if there is space, and a variety is wanted, then for quality, and a sure crop, early to ripen, the Croton has no superior among the white grapes, so far as we have tested. And of the red grapes, the Iona is our best, though not so early as either of the preceding, and requires a southern exposure, well sheltered from cold winds, a good warm soil, with clay, or, better, clay and gravel, to insure well ripened fruit every year. But when well ripened, as they ripen on our grounds, they are truly luscious, keeptng well into winter, in a common room, on shelves or in baskets, gradually drying into good raisins, without the addition of sugar."

A MONSTROUS GRAPE VINE.

The *Pacific Rural Press*, published at San Francisco, gives an account of a grape vine growing near Santa Barbara, in that State, which is four feet and four inches in circumference in the largest part. It begins to branch out at about six or eight feet from the ground, and is then supported on framework, which it covers as a roof. The whole vine, supported on the framework, now covers an acre of ground. Several of the limbs are as much as ten inches in circumference at a distance of twenty-five or thirty feet from the trunk. The annual yield of grades from this mammoth vine is from ten thousand to twelve thousand pounds. The clusters of grapes average, when ripe, from two to two and a half pounds each. The vine is on rather high ground, and it is stated that the ground about it has never been manured at all. The soil under it is hard, and the Spaniards dance under the shadow of the leaves of the vine, which form a completely sun-proof covering of living verdure. This vine by its product supported the old woman who owned it for many years. Another vine, near by, bids fair to rival the "father of all vines," the fruit from it rather excelling that of the "big vine." A small stream of water runs near both vines, which probably helps their growth.

USEFUL RECIPES.

SPICED CANTELOPE.—We prefer the rough skin, firm fruit, though ripe. We tried the large citron last yeat aud found them very good. Take out the seed, cut and pare, then cover the whole quantity with good cider vinegar. We use a large earthen crock and let it stand over night. Next morning measnre the vinegar and throw away half of it. Then, to every quart that is left, add three pounds of sugar, and put it on the stove with the fruit and let it simmer until you think it done. I think we did ours over two hours. Don't forget to cook with it half an ounce of cloves and one ounce of cinnamon. I suppose that amount of spice to every quart of juice is the right way, but I only put that quantity to five pints of vinegar. I also used white vinegar, and think it as cheap as any. I know a good cook who does the most of her spicing and preserving in tin pans, and I followed her example and had no trouble; there is more danger of burning than preserves.—*Ex.*

SPICED TOMATOES.—To four pounds of large red tomatoes take two pounds of good brown sugar, a pint of cider vinegar, half an ounce of cloves, and half an ounce of stick cinnamon. Stew altogether in a preserving kettle over a slow fire, until the tomatoes are nearly cooked. Take them out and put them on dishes to cool, letting the syrup go on simmering slowly. When the tomatoes are cold return them to the syrup, and finish cooking. Let them become cold before putting them into the jars. The syrup must be boiled down until thick as molasses, and poured cold over the tomatoes. Tie them down with bladder or waxed paper.

DR. ANDERSON, of Edinburgh, Scotland, has proved by actual analysis that the last gill of milk drawn from the udder of the cow contains sixteen times the amount of cream incident to the first one, the separation of the cream from the milk taking place in part in the udder, particularly when the animal is suffered to stand at rest for some time before milking.

THOROUGHBRED STOCK.

The idea is prevalent among a certain class of farmers that it will not pay to purchase thoroughbred stock, for the reason that the value of such stock being far above that of common animals, there is no adequate profit in the investment, There are two serious mistakes made in taking this view. The one is that the cost of thoroughbred stock is excessive, and that an immense profit is made by the breeders selling animals at exorbitant prices; the other is that it does not pay to improve common stock by crossing pure-bred stock upon them, and that unless there is large capital available with fine stables and costly attendance, the condition of these animals so deteriorates that they no longer possess any superiority over any other stock. Now, while year by year the value of the choicest specimens of the favorite breeds, either of horses, cattle, sheep or swine, gradually increases, on the other hand, fair average animals, in which the blood of the choicest is intermingled, are gradually decreasing in price. The great demand for the best of everything now existing, and the competition of a largely increased number of breeders desiring to purchase the best, tend to cause their increasing price, but the very same increased number of breeders who have stock to dispose of tends to operate in the contrary direction with the average class of stock. It is now possible to purchase full-blood stock of good strains for very reasonable prices—not more than twice or thrice those asked for good native stock. We constantly see reports of sales of bulls and cows of Jersey, Ayrshire, Devon, or short-horned breeds at from $100 up to $500. These prices are certainly within the means of a vast majority of farmers. If not, now is the time, when co-operation and combination is the fashion, to make this business one of those to be brought under the influence of joint effort. As to the second mistake made, it is only necessary to point out the money value of the product of thoroughbred stock to show that the investment is a profitable one. In addition it might be shown that the profit is not confined to the thoroughbred alone, but that the first cross partakes so much of the better qualities of its high-bred parent that the advantage is immense, even at so early a period of improvement. Dairy stock of half-blood Jersey or Ayrshire will produce double the amount that an average native dairy will or can. In a dairy of twenty-five cows, one pure-bred bull, at a cost of $500, will produce twenty-five heifer calves every two years. The value of these calves is doubled from the moment of their birth on account of their parentage. When weaned the owner would rarely accept $20 each for them. The $500 then returns twenty-five per cent. each year in this way alone. But if these calves are raised until they come into profit their product as cows will doubtless be double that of their dams on the whole. Then, twenty-five cows, each year producing a clear profit of $50 each instead of $25, as heretofore, (a low estimate,) a difference of $625 yearly is shown to the credit of the investment. In beef stock a larger margin than this even can be shown, for not only is a greater amount of flesh produced for the same quantity of feed consumed, but the market price of a grade steer is higher for the whole weight of the animal than that of a native. Generally the benefit accruing is equal to a return of the value of a pure-bred bull on the third year, and every year afterward, on the beef sold, in addition to the increased value of the heifers as breeding stock. The same is true of sheep, hogs, and poultry, and were our young stock thus improved each year to come, as far as might be possible, undoubtedly the census of 1880 would show the value of our live stock to be double at least that of the stock enumerated in the previous one of 1870.—*New York Times.*

WATERING PLANTS IN DRY WEATHER.

I am trying to keep my ornamental plants alive by watering them, althongh this is an irksome task where one has not made preparation for thorough irrigation. I think most persons make a mistake in giving to little water at a time, and applying it frequently instead of thoroughly soaking the soil at once and then apply no more for a week or more. This sprinkling of the surface does little or no good, for the water makes the soil bake a little harder each time, keeping out the air, forming an excellent conductor for the heat to penetrate the earth, driving out what little moisture it may contain. Water should be supplied in sufficient qnantities to saturate the soil down to the lowest roots, and if this be done, there will be no need of giving frequent applications. Around trees and all coarse plants a mulch of some kind should be applied after watering, to prevent exaporation and keep the soil cool as well as moist. Among small plants the hoe and rake must be kept in constant use, to keep the soil loose and prevent it becoming baked and hard. Heat will pass through a brick and drive out every particle of moisture in much less time than it will through the same quantity of loose soil. The particles of which the brick is made are pressed together, forming an ex-

cellent conductor for heat, and evaporation pro ceeds slow or rapid as heat is transmitted through the mass. A heavy clay soil is usually very wet or very dry, because of its compactness, but to talk of breaking up deeply, aerating and draining a soil that gets as hard and dry as a brick in Summer, may appear to some persons the height of folly, but it is the cheapest and most expeditious way of making it dry in wet weather and moist in the time of drouth. Hundreds of ornamental trees have died and are now dying in my neighborhood simply for the want of moisture that has been driven out of the brick-like soil about their roots. A little water and a breaking up of the earth about them would have prevented their death. Trees that are worth five or more dollars each could have been saved by an outlay of from five to ten cents; but there is little use of talking to those who will neither read nor reason.—*Rural New Yorker.*

AGRICULTURAL INTELLIGENCE.

Large Calf.—Mr. S. J. Howard of this place has a calf dropped March 1st, that weighs this day 535 lbs., and girts 4 feet 7 inches. He is a grade Durham of a very fine deep red color. W.

North New Portland, Aug. 4th.

Large Calf.—Mr. Albion H. Turner of Rome, has a large and handsome grade Durham cow which dropped a bull calf (after a thoroughbred bull) Aug. 8th, that weighed 114 pounds. It is well proportioned and a handsome red color. If any of your readers can beat him, let them trot out their calves. Reader.

A Good Record.—Mr. J. F. Hallett of West Waterville has a thoroughbred Jersey cow, which through the month of June averaged 47½ pounds of milk daily; and the milk for seven days yielded 15½ pounds of butter. Who can show a better record?

Preserving Eggs.—A Parisian paper recommends the following method for preservation of eggs: Dissolve four ounces of beeswax in eight ounces of warm olive oil; in this put the tip of the finger and anoint the egg all around. The oil will immediately be absorbed by the shell and the pores filled up by the wax. If kept in a cool place, the eggs, after two years, will be as good as if fresh laid.

Artificial Oysters.—Grate as many ears of green corn as will make one pint of pulp, add one teacupful of flour, half teacup of butter, one egg, and pepper and salt to suit your taste. Dropped and fried in butter.

It is necessary sometimes to refrain from questioning our friends, that we may not draw from them what we ought not to know, and especially that we may not tempt them to deceive us.

VARIETIES OF SWEET CORN.

Mr. Elliott has again been experimenting with different sorts of Sweet Corn, and we find in the *Cleveland Herald* the following as the conclusions to which he has come:

We have this year planted and grown side by side a dozen or more hills each of fourteen named varieties of sweet corn, our object being to again test the earliness or comparative earliness of sorts, and their thus apparent value either for the market grower or the private family. Some years since we had a variety of Brill's Extra Early, which always has a reddish stalk, and was with us the earliest variety, but of our planting of corn side by side for test of earliness and value, gave our seed a mixture, and we have lost the Brill, nor have we been able to obtain it pure. The Minnesota comes next to earliness to Brill's, as per our test of years gone by, but this and last year, while we acknowledge the Minnesota an early sort, its ears are too small for market. Pratt's Early is very much like Minnesota, and side by side is equally early. It also has a trifle larger ear and is preferable. Brigg's Extra Early comes, when grown side by side with the forenamed, only one or two days later, and its ears are much larger and superior. All in all we count Brigg's Extra Early as the very best very early sweet corn yet known. Darling's Extra Early is next in value, and then comes Crosby's or Boston Market Extra Early with the best sized ear of all before named. Campbell's Extra Early we have no desire to grow again, when we can obtain either of the forenamed. Russell's Prolific has a good character and is said in the catalogues to be earlier than Moore's Concord, but when we can get Moore's Concord we don't want Russell's Prolific. The Black Mexican is productive and pretty early, but while we give freedom to color, we confess it is not to our pleasure an eating palatable food on our table. We will none of it. The Mammoth Sweet and Evergreen, or, as formerly called, Stowell"s Evergreen, are of course not yet matured, but our former years records give ouly credit to the Evergreen. The Gen. Grant is a new sort, and said to be very late; ours certainly will be.

Diogenes, being asked who were the noblest men in the world, replied, those who despise riches glory, pleasures and lastly, life; who overcome the contrary of all those things, viz., poverty, infamy, pain and death, bearing them with an undaunted mind. And Socrates being asked what true nobility was, answered, temperance of mind and body.

HOME EMBELLISHMENT.

BY F. F.

I will give you now a brief mention of our other floral pets mentioned in the July number of the *Maryland Farmer*. Among the roses, we have the Black Prince, a large, full fragrant velvety flower almost black, whose richness I cannot describe. It is a graft on another root, and suckers must be kept down. It is not doing well this year, which from the appearance of all the roses, appears to be unusually severe upon them, for we are having a most afflicting drought, and household cares and duties engross so much time, that I must repeat the old story: we are too busy on wheat and corn—something to get bread, as the stereotyped farmer says—to do justice to the pretty flowers. Next year I think it will be different, for I hear the head of the family say he is through with corn, oats and wheat as market crops. Won't that be pleasant, Mr. Editor? Instead of cooking and toiling for lots of necessary evils, we can find time for more out-door exercise among the flowers.

Then we have General Jaquemont, a red rose; Fortune's Double Yellow, Mlle'd Austide, M. Rubra, Soeur des Anges (Sister of the Angels, a gentle pink flower); the Cabbage Rose, the Guilder or Snowball. The rapid and spreading growth of this flower strongly commend it for a lawn shrub, particularly on new places. Our Privet bloomed beautifully, and is another desirable lawn plant. Of course, everybody has *some* lilacs; for a rapid growing hedge, to conceal a deformity, it is very valuable as well as for a single clump on the lawn; the earliness of its green resurrection from the death of winter, is the death of the body in the cold winter of disease or age, followed by the flowery garments of another spring time and delightful fragrance, make it especially desirable; but ah, how short the visit of its blossoms! As some compensation for this brief sojourn, we have planted a Japanese Honey Suckle at the foot of a lilac, a few feet from the piazza, and its growth has covered the top of the bush, mingling its delicate green with the dark tints of the lilac leaf in pleasing contrast; and after the sweet lilac blossoms have kissed the earth in the delight of its short lived love, the white and yellow of the more durable honeysuckle spreads beauty and fragrance around it. As a climber, a trellis plant, or a screen, I wish earnestly to commend this plant to your horticultural readers, with the assurance that it may readily be propagated from its off shoots and layers, and that when once established, they will never willingly part with it. In a recent visit to Baltimore county I saw a mansion highly decorated with it, its luxuriance covering columns and foundations; but there it was called the French, while a less hardy plant on one of the pillars with variegated leaves was called the Japanese. I bought mine, as the Japanese several years ago from one of your advertisers, and do not regret the purchase even if it is *not* the Japanese; but I would like to have the name right to be sure of what I am recommending to your readers. Perhaps Mr. Feast or Mr. Brackenridge will throw some light on this matter for the benefit of your readers. I think Mr. Brackenridge has all the varieties, and presume Mr. Feast has also; with whom, and the florist who "chats with the ladies" on all these matters, I leave the question for the present.

PUBLICATIONS RECEIVED.

THE CATALOGUE OF THE BOW PARK HERD OF THOROUGHBRED SHORT HORNS, the property of Mr George Brown, Bow Park, Canada. It is neatly gotten up, and contains the pedigrees and description of over fifty bulls and over two hundred cows, heifers and cow calves.

ABRIDGED EDITION OF THE MESSAGE AND DOCUMENTS FOR 1872-'73 from the Hon. W. T. Hamilton, U. S. S., for which the distinguished Senator will accept our thanks. The volume contains much useful matter not only to the politician, but to the general reader who desires information as to the resources of the country, and the annual operations of the General Government.

PREMIUM LIST OF THE GEORGIA STATE FAIR, AT MACON GA., beginning October 27th, 1873.

BULLETIN OF THE NATIONAL ASSOCIATION OF WOOL MANUFACTURERS, April, June, 1873, edited by John L. Hayes, Boston. There are few, if any Quarterlies published in this country more ably conducted, and certainly none which contain such a mass of information on the subjects to which it confines itself, such as the Clothing Manufacture; Cotton Culture, and Cotton Manufacture in the United States, as related to the Tariff; Restrictions on Trade; Industrial Miscellany, being the table of contents of the number before us.

FIFTEENTH GRAND FAIR OF THE NEW JERSEY STATE AGRICULTURAL SOCIETY, Waverly Station, near Newark, commencing on the 16th of September, 1873, and continuing four days. The Premium List and Rules of this Association have been received, and we are glad to see so encouraging an amount of premiums offered, and note one commendable feature, that is also a novel one; the offer of a gold medal for the best specimen of apprentices' labor in either of the branches of the Mechanic Arts. This is right; youthful industry and skill should be encouraged.

CATALOGUE, CIRCULAR AND LAWS OF CHARLOTTE HALL SCHOOL, St. Mary's County, Md. We are pleased to see this old and celebrated Seminary of Learning in so flourishing a condition. In olden days it was the Alma Mater of some of the most distinguished men of Virginia and Maryland, and has always kept up its popularity and reputation.

NEW YORK STATE AGRICULTURAL SOCIETY. Its Thirty-Third Annual Fair will be held near the city of Albany, on the grounds of the Albany Agricultural and Arts Association, opening on the 24th of September, and closing on the 1st day of October next.

PHILLIPS' SOUTHERN FARMER. Memphis, Tenn. Dr. M. W. Philips, editor in chief, with fine able assistants. This well conducted Monthly Journal is one of our most cherished exchanges.

THE MONUMENTAL CITY, ITS PAST HISTORY AND PRESENT RESOURCES. By George W. Howard. This valuable and interesting work is admirably gotten up, and will meet with a ready and very extensive sale. We shall take an early occasion to speak of its merits and give it an extended notice.

REPORT OF THE BOARD OF TRUSTEES OF THE AGRICULTURAL COLLEGE OF PENNSYLVANIA FOR 1872; from the President, James Calder, Esq. This is a model report, giving much valuable information. We commend to the consideration of the authorities of our Maryland Agricultural College this report, as a pattern for their guidance. Experiments are essential and interest the minds of the students more than elocutionary dictums of theoretical lectures. We are glad to see there has been a thorough reformatory movement in our College; the present plan will lead to much good. It is now all that an Agricultural College is expected to be. We have received their catalogue for the past year, and rejoice at the flourishing condition we find it to be in. The next year, under its reorganization, we are sure the report of its experimental operations will be hailed with a glad welcome by the whole farming community of Maryland.

LADIES DEPARTMENT.

CHAT WITH THE LADIES FOR SEPTEMBER.

BY PATUXENT PLANTER.

"*Awake!* the morning shines, and the fresh field
Calls you; ye lose the prime, to mark how spring
The tended plants, how blows the citron grove;
What drops the myrrh, and what the balmy reed;
How nature paints her colors; how the bee
Sits on the bloom, extracting liquid sweets."

This month of September is generally a pleasant one. The travellers return home. The autumn flowers are in their prime, and bees are assiduously at work laying up their winter stores and making snowy combs, the cells filled with rich amber-colored juice for the bee-keeper. It is, or ought to be a busy month for the house-keeper. Preserves to be put up; fruits and vegetables to be canned, and others to be dried; the various kinds of pickles to be made, and sauces and jellies and catsups. Butter making and packing for winter begins in this month. Poultry are moulting now and require extra attention and generous feeding. Let me say it is true economy to feed young poultry very often and with a bountiful hand.

The art of making the old-timy biscuits is I fear soon to be numbered among the "lost arts." My reflections on this subject were suggested by the reception of a lot of nice crisp beautiful biscuits from a lady relative who lives in the famed West River district of Anne Arundel. My mind flew back to my boyhood days, when Aunt Judy was to be seen with her shiny, round, ebon face and snow white apron; sleeves rolled back, with her tray, flour, salt-box and butter or lard, &c.; her Dutch oven all right, and a plenty of live coals in the great wide fire place. Those were days when pigs *were* roasted, and saddles of mutton *were* cooked, and biscuits that *were* biscuits made,—such as I have just received and eaten with a gusto. The old slave cooks never heard of the villainous, poisonous compounds now used to make bread, some of which is chiefly made of bone-dust—yes, ladies, old bones are ground up and made into your famous yeast powders, which your lazy cooks pour into your flour that your bread may be light?—open as a honeycomb, and not sweet as honey, but full of poison, and like a sponge, to swell in the stomach and breed dyspepsia. They are too dainty to work the dough until you have it snap and crack like a whip as it used to do under the quick and long manipulation of Aunt *Judy* and her contemporaries. Good biscuit is more wholesome than the best of light bread. No girl ought to be considered sufficiently educated to marry until she can make first-rate biscuit and prime butter. Mothers should see that their daughters are accomplished in these two essentials in good house keeping. It will give more peace and quiet content, be assured, in a household than the brilliant performance of an operatic air on the Piano. Let me give you a short rule to have good butter. *Extreme cleanliness in all things connected with the entire dairy business. Keep your cream on the ice, keep your butter, which you use daily and such as you pack for winter, on the ice until the weather is cold in autumn,* you will have sweet, and firm butter. The famed butter of Philadelphia is preserved so, or in a stone underground dairy with cold water continually running through it. Milk and butter will not keep sweet long if subjected to heat. The chief use of an ice house is to have cold milk, cream and pure, sweet butter. It will take a few moments longer for the cream to turn to butter, but it will thereby be richer colored, and the buttermilk will be splendid, instead of sour and watery. Try it. Buttermilk from cream kept on ice makes a rich, delicious *ice cream*, with the addition of a little soda, sugar and vanilla, or extract of peach or pine-apple.

This is the month when *pickling* begins in earnest. A good plan is to have a barrel half filled with brine that will bear an egg, which has been boiled and scum, with a little alum in it. In this brine the different articles as they are gathered can be put, until a sufficient quantity be selected to fill a jar or keg with pickles. Small canteloupes, cucumbers, beans, peppers, young corn before the grains begin to fill makes beautiful yellow pickle. Cauliflower is fine for pickles, especially in chow-chow pickle. The following receipe for pickling *walnuts* we know to be an excellent one. After the walnuts have been a year or two in the bottles, the vinegar will become a nice catsup for fish. The English walnut is the best; the butternut next to be preferred to the common black walnut.

"Gather them dry, prick through with a large pin two or three times, put them into salt and water, shift them every three days for a fortnight, put them into a sieve, and let them stand in the air, and then put them into an earthen jar. Boil as much vinegar as will cover them well, pour it boiling hot over them, let them stand three days, then put them into a sieve, and let them stand in the air another day; then take to every quart of fresh vinegar that may be wanted, half an ounce of black mustard seed, half ounce of horseradish cut into slices, a quarter of an ounce of long pepper, three cloves of garlic, a dozen cloves, four or five pieces of raw ginger, and a few eschalots; boil these ten minutes, and pour it boiling hot over your walnuts; let stand a fortnight, then put them into bottles corked close, and cover the corks with resin. They will keep for years."

HOW TO KEEP FLOWERS BLOOMING A LONG TIME.—All lovers of flowers must remember that one blossom allowed to mature or "go to seed" injures the plant more than a dozen new buds. Cut your flowers, then, all of them, before they begin to fade. Adorn your rooms with them, put them on your tables; send boquets to your friends who have no flowers, or exchange favors with those who have.—You will surely find that the more you will cut off, the more you will have. In this, as in other things, the wise man spoke truly when he said, "There is that scattereth and yet increaseth, and there is that withholdeth more than is need, and it tendeth to poverty." All roses, after they have ceased blooming should be cut back, that the strength of the root may go to forming new roots for next year, and on these bushes not a seed should be allowed to mature.

We would give as we would receive, cheerfully, quickly, and without hesitation; for there is no grace in a benefit that sticks to the fingers.

NEW ADVERTISEMENTS.

G. & N. Popplein, Jr., *Maryland paint and Color Works*, and manufacturers of *Paris Green* for destruction of bugs on potatoes, tobacco plants, &c.

Smith, Dixon & Co., *Commission Warehouse*, for the sale of Paper.

John Bullock & Sons, extensive dealers in *Fine Ground Bones.*

J. Q. Hewlett & Co., extensive dealers in *Hides, Leather and Oil.*

Charlotte Hall School, elsewhere specially noticed.

Sanders & Stayman, General Agents for the *Estey Organ.*

B. M. Rhodes & Co., *Orchilla Guano, A. A.*

C. L. Allen, *Queens N. Y. Bulbs*, which he grows to an immense extent.

James Vick, *Bulbs, &c.*, Rochester N. Y., one of the most celebrated dealers in Flowers and Seeds in this country.

H. M. Thompson, 2 *year old Seedling Stocks.*

R. G. Hanford, *Pear Trees for the Million.*

William Parry, Cinnamonton, N. J., "*The Monarch of the West*" *Strawberry for sale.*

R. Q. Taylor, Balt., celebrated for *Fine Hats, Caps, Furs and Umbrellas.*

Klinefelter Bros., every description of *Bags.*

Tate, Muller & Co., dealers in *Fertilizers.*

R. W. L. Rasin & Co., *Soluble Sea Island Guano.*

F. H. Kinney, *Nurseryman and Brown Leghorn Fowls.* Originator and Breeder of *Worcester Co. Fowls.*

Kent County Agricultural Society; noticed elsewhere.

Georgia State Agl. Society, with City of Macon's List of Premiums; noticed editorially in this number.

W. W. W. Bowie; *Fine Stock.*

E. Whitman & Sons, *Cider Presses, Wheat Fans, Grain Drills, Phosphates and Fertilizers.*

John S. Reese & Co., *Soluable Pacific Guano.*

R. J. Baker & Co., *Potash, Soda, Ground Bone, &c.*

A. S. Lintard, *Veterinary Surgeon.*

Navassa Phosphate Company, *Fine Ground Navassa Guano.*

R. W. Rasin, *Improvement in Bridges.*

Maltby House, Baltimore, *first-class hotel.*

C. W. Slagle & Co., *Fultz Seed Wheat.*

John Saul, Washington, D. C., *Nurseryman.*

Coiwell Lead Co., *Pure Water.*

Bowen & Mercer, *Super Phosphate.*

Jesse Haney & Co., *Hunters' and Trappers' Guide.*

We feel flattered by the very great increase to our former extensive list of Advertisers, all of whom we can with confidence say are reliable and worthy the patronage of the public. All who desire to use our Advertising columns will please send in their orders before the 20th of the month. as we shall be crowded and will have to add additional pages.

A FLORAL ORNAMENT FOR THE DRAWING ROOM.—Last August a lady friend of mine gathered a handful of the world-renowned flowers of Forget-me-not, *Myosotis palustris*, and to preserve them as long a period as possible, they were put in a large soup plate filled with rain-water. The flowers were placed near the window, so as to enjoy the advantages resulting from an abundance of light and air, and the water was replenished when needful. In a suprisingly short space of time—three weeks, I believe—white thread-like roots were emitted from the portion of the flower-stalks in the water, and they ultimately formed a thick net-work over the plate. The flowers remained quite fresh, excepting a few of the most advanced when gathered, and, as soon as the roots began to run in the water, the bud began to expand, to take the place of those which faded, and up to the middle of November the bouquet—if it may be so called—was a dense mass of flowers, and a more beautiful or chase ornament for the indoor apartment cannot be imagined.—*Gardener's Magazine.*

BALTIMORE MARKETS--Aug. 30th.

Prepared for the "Maryland Farmer" by **GILLMORE & ROGERS**, Produce Commission Merchants, 159 W. Pratt st.

[*Unless when otherwise specified the prices are wholesale.*]

ASHES.—Moderate inquiry at $8.00@$8.25.

BEESWAX.—Steady at 34@35 cts.

BUTTER.—receipts lighter, with an active market; Choice Yellow in Firkins, 18@20 cts.; do. in Tub, 20@22 cts.; Medium to Good, 12@15 cts.

COFFEE.—Recipts on the increase with a dull market, for job lots, *gold*, duty paid—prices range from 18 to 20 cts.; for Ordinary to Choice Rio.

COTTON.—Market steady; Ordinary, 15½@16 cts.; Good Ordinary, 17@17½ cts.; Low Middling, 19@19½ cts.; Middling, 20@20½ cts.

DRIED FRUITS.—We leave out quotations as the old stocks are worked off, and no arrivals of new except of Cherries which are selling at 16@18 cts.

EGGS—Receipts heavy, market dull. During the warm weather shippers should send in Stevens Patent Egg Cases. Fresh in Barrels, 18@19 cts.; do. in Cases, 20@21 cts.; Fancy Brands, 22 cts. Never wash eggs as it causes them to rot very quick; never leave them in the sun as it heats them and they are spoiled by the time they get to market.

FEATHERS.—Quiet. Live Geese, Prime White, 75@80 cts.; Dark, 55@65 cts.; Common, 25@35 cts.; Chicken, dry picked 9@10 cts.; scalded, 7@8 cts.; Turkeys, 3@5 cts.

FERTILIZERS.—No change to note. We quote:

Peruvian Guano—gold	$68 ₹ ton	of 2000 lbs
Turner's Excelsior	60 ₹ ton	"
Turner's Ammo. S. Phos	50 ₹ ton	"
E. F. Coe's Ammo. S. Phos	55 ₹ ton	"
Soluble Pacific Guano	60 ₹ ton	"
Patapsco Guano	60 ₹ ton	"
Flour of Bone	60 ₹ ton	"
John Bullock & Sons Pure G'd Bone	45 ₹ 2000 lbs.	
Andrew Coe's Super-phosphate	50 ₹ ton	"
Dugdale & Co's Am. Snper Phos	50 ₹ ton	"
Bone Dust	45 ₹ ton	"
Horner's Maryland Super Phos	50 ₹ ton	"
Horner's Bone Dust	45 ₹ ton	"
Dissolved Bones	60 ₹ ton	"
Missouri Bone Meal	47 ₹ ton	"
New Jersey Ground Bone	40 ₹ ton	"
Moro Phillips' Super-Phosphate Lime	50 ₹ ton	"
"A A" Mexican Guano	30 ₹ ton	"
"A" do. do	30 ₹ ton	
Moro Phillips' Super-Phosphate	50 ₹ ton	
Whann's Raw Bone Super Phos	50 ₹ ton	
Plaster	$2.25 ₹ bbl	

TOBACCO—Market very active.

Maryland—frosted	$3.50@ 5.00
" common	6.00@ 7.00
" good to fine	10.00@15.00
" ground leaves	4 00@ 9.00
Virginia—common to good lugs	6 00@ 8 00
" common to med. leaf	8.00@9.50
" fair to good	10.00@11 50
" selections	12 00@15.00
" stems	3 50@ 5.00

FLOUR.—Market very dull and weak, prices declining. Super, $5.00@$5.25; Extra, $6.00@7.25; Western Family, $7 50@$9.50; Fancy Family, $10.50@11.00.

GRAIN.—*Wheat*—Very dull in sympathy wtth Flour and prices lower; Southern White, $1.60@$1.90; do Red, $1.50@$1.70; a lot dry new Southern White sold at $2.25

CORN—Market firm; Southern White, 72@77; do. Yellow, 60@63 cts.; Western mixed, 60@62 cts. *Oats*—Market dull at 45@48 cts.

HAY AND STRAW.—dull and prices lower. Pennsylvania Timothy, $16.00@$20.00 per ton; Rye Straw, $25@$26.00; Oats, nominal.

MILL FEED.—Very dull and prices lower. Light Middlings, 22@25 cts.; Medium, do. 30@35 cts.; Heavy, do. 38@43 cts.

PROVISIONS.—Bacon Shoulders, 8½@ 9 cts.; Rib Sides, 9¾@10 cts.; Clear do. 10¼@10½ cts.; S.C. Hams, 16@17 cts.

RICE.—Carolina firm at 8½@9 cts.

SALT.—Dull. Fine, $2.35@$2 40; Ground Alum, $1.30@$1.35 per sack; Tuaks Island, 35@40 cts. per bus.

WHISKEY.—94@95 cts. per gallon.